

**RIKSMUSEETS ETNOGRAFISKA AVDELNING**

**SMARRE MEDDELANDEN**

**N:r 10**

**THE USE OF OXEN AS PACK  
AND RIDING ANIMALS  
IN AFRICA**

**BY**

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**STOCKHOLM 1931**



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## THE USE OF OXEN AS PACK AND RIDING ANIMALS IN AFRICA

The use of cattle, oxen or bulls,<sup>1</sup> as beasts of burden or riding animals in Africa is mainly found within two areas, one consisting of the Sudan and portions of north-eastern Africa, and the other of South and South-West Africa (including parts of Angola). This generalized distribution is no doubt known to students of African ethnology. It has of late been emphasized by H. Kroll,<sup>2</sup> who also refers to Kürchhoff.<sup>3</sup> The latter's essay on African means of transport unfortunately not being within reach of the writer, I am not able to say to what extent Kürchhoff adduces data in support of his statements as regards cattle being used as beast of burden. According to Kroll, however, he instances this practice from the hinterland of Sierra Leone, Liberia, French Guinea, the region of the sources of the Niger and its upper reaches, and also among the inhabitants of Asben (Air), the Lake Chad region, from Darfur and Kordofan. For my part I here propose, on the basis of such literature as I have available, to particularize in detail the geographical distribution of this

<sup>1</sup> In the present treatise I have employed the word "bull" whenever my authorities themselves have used it.

<sup>2</sup> H. Kroll, *Die Haustiere der Bantu*, *Zeitschr. f. Ethnol.* 1928, pp. 233, 257. H. Marno's article "Ueber die Verwendbarkeit von Last- und Reitthieren in Inner-Afrika" (*Mittheil. d. Kais. und Kön. Geograph. Ges. in Wien*. Bd. XIX, Wien 1876) does not carry out the promise given in the title, but only deals with part of the White Nile district traversed by M. Neither do we find anything of particular interest to our investigation in L. Hut-schenreuter's inaugural dissertation, but for the sake of completeness I will however here mention it, viz. "Die Bedeutung d. Transporttiere in aussertrop. u. trop. Afrika, mit besond. Berücksichtigung d. deutsch. Kolonien u. der Sahara" (Jena 1908). On the other hand, in his dissertation he deals fairly exhaustively with the distribution of the camel in Africa, and the conditions governing its occurrence.

<sup>3</sup> D. Kürchhoff, *Die Lastenbeförderungsmittel in Afrika*. *Zeitschr. f. Kolonialpolitik, Kolonialrecht u. Kolonialwirtschaft*. 1907.

culture element in Africa, thereby taking into account the occurrence of this means of transport not only among natives but also among Europeans.

In conclusion of these introductory remarks I would add that the subject of this essay is one which has been much overlooked not only in accounts of travel but also in purely ethnographical works. In most cases it is only rather casually referred to.

## I. REFERENCES IN ANCIENT LITERATURE, ETC.

*(Northern Africa and adjoining portions of the Sahara).*

From obvious reasons references to domestic cattle used for load carrying or for riding are in the literature of ancient times only found from northern Africa. Mention of this, however, is only rarely to be met with. From Herodotus (IV, 183) we know that the Garamantes beside their horses also possessed cattle, and, according to an early report cited by Gsell (and before him by Barth), used the latter also as riding animals: "Garamantum, qui supra Tripolim Afrorum sunt, regibus tauri placuerunt ad sessum".<sup>1</sup>

Neither in Strabo nor in Pliny the Elder, have I come across anything to assist us in our investigation.

Other ancient sources of information consist of the rock-carvings and rock-paintings that are of such frequent occurrence in northern Africa (particularly Algeria) and northern Sahara. Many of these are known to be of a later age, and others are difficult of determination as to date, but again there are others that unhesitatingly may be put down as prehistoric (in view of their representing wild animals long ago disappeared from the Atlas-Sahara region, where some of them no longer would be able to exist). In the opinion of Gsell it has been practically established that in prehistoric times domesticated horned cattle existed in Barbary, and he points to prehistoric pictures of such animals, which, so far

<sup>1</sup> S. Gsell, *Histoire ancienne de l'Afrique du nord*. I, p. 61 (Paris 1913): "Quaestiones ex utroque Testamenti mixtim, 115 (écrit attribué à saint Augustin, dans *Migne*, *Patrologie latine*, Tome XXXIV—V, p. 2350)".

as can be judged, are carrying some sort of pack-saddle: "A Khanguet el Hadjar, dans la région de Guelma, un boeuf, à cornes courtes, est tenu en laisse par un homme: Ailleurs, plusieurs bovidées à longues cornes paraissent porter une sorte de bât ou de housse."<sup>1</sup>

Among the picture material of Flamand's, as well as Frobenius' and Obermaier's, wellknown works on rock-carvings and rock-paintings in northern Africa I have found no references to bovine animals used as saddle or pack animals, nor in H. Breuil (*L'Anthropologie* 33, p. 156. Paris 1923). On the back of an ox in a drawing (rock-carving) from Taghit (Sud Oranais) is what appears to be a sort of covering or pack-saddle, although no definite opinion as to its nature is possible nor can the date be determined as regards these rock-carvings which, among other things, show a number of saddled horses.<sup>2</sup>

The carvings on sandstone boulders at Wadi Telissare (north of Rhat), published by Barth, represent, it is true, bovine figures (humpless) but none of them is saddled or carrying a pack. B. nevertheless opines that cattle were used as beasts of burden in these parts before camels were introduced. This because he has been unable to discover any pictures of the latter, and in view of the fact that the carvings are situated at a watering place on a main road leading southwards.<sup>3</sup> On the other hand, Nachtigal discovered in northern Tibesti (region of Bardai), on massive sandstone boulders, engraved pictures of bovine beasts, some of which "are carrying the pack saddle commonly used in the Sudan,"<sup>4</sup> but all of them have a rope tied round the horns, which is

<sup>1</sup> *Gsell*, above cited work, I, p. 221. He refers to the following sources, to which I have no access: Oued Itel: *Rec. de Constantine*, XXXVIII, p. 167. Barrebi, au Sud de Figuig: *Gautier*, Sahara algérien, fig. 15, Nos. 2 et 5, à la p. 95.

<sup>2</sup> *Duvaux*, Notice sur des inscriptions recueillies à Taghit (Sud Oranais). *Bull. Trimestriel de Géographie et d'Archéologie*, T. XXI, Pl. IV, 6. Oran 1901.

<sup>3</sup> *H. Barth*, *Reisen und Entdeckungen in Nord- und Central-Afrika*. I, p. 215. Gotha 1857.

<sup>4</sup> *G. Nachtigal*, *Sahara und Sudan*. I, p. 307, with fig. Berlin 1879.

pulled by an invisible hand, as can easily be seen from resistant attitude of the animals".<sup>1</sup> This rope, Nachtigal maintains, "no doubt indicates that the pictures were engraved during an era when cattle were a characteristic feature of these desert landscapes. Because if the artist had only intended to record his reminiscences from a journey to the Sudan districts then he would, as is there the custom, have drawn the rope through the nasal septum in the animals". Further, the animals in these drawings have no hump, which is a feature possessed by the Sudan cattle. Beside the cattle drawings Nachtigal found there depicted a solitary camel, but this is much less artistically executed. From this he concludes the cattle pictures to be, probably, of some earlier date, executed prior to the camel having come into use in these regions, and that the camel picture may have been added simply as an imitation, in a way, of the cattle pictures already in existence, and done by some "modern Tubu boy". Nevertheless it may well be, as Gsell remarks, that it is still undeterminable whether these pictures, like those in Barbary, are in fact pre-historic.

Many works of which it might be expected that they would contain data in supplementation of our present investigation as regards ancient times, as e. g. those of Gautier, are unfortunately beyond my reach.

Even if instances of oxen being used for transport or riding purposes in northern Africa in ancient times are scant, they nevertheless justify the assertion that this mode of transport once in places did exist in those parts, and then to a far greater extent than in more modern time. Its decline is no doubt ascribable partly to the introduction of the horse and the camel, and partly to the circumstance that certain regions — more particularly the neighbouring reaches of the Sahara — have successively become desiccated, and that even within historic times. On the other hand it would seem — and in this connection it may suitably be pointed out — that in

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<sup>1</sup> Unfortunately Nachtigal supplies no pictorial reproduction of any animal fitted with a pack saddle.



the Sahara cattle are able to go without water for astonishingly long periods of time. Thus Rodd states that "loaded oxen can march comfortably with water only every third day" and further he relates of the Tuaregs in Air how before the war "they used to carry on an active trade in cattle, buying from the Fulani in Damergu and selling to the people of Ghat and the Fezzan. Incredible as it may seem, cattle used to be driven over the roads to Ghat after the rains, and do as much as four and five days without water. The mortality must have been considerable, but their cheapness in the Southland made the trade profitable".<sup>1</sup>

## II. THE NORTHERN AREA.

### 1. *North Africa (north of the Sahara) in modern times.*

Few are also the data from northern Africa in modern times. Gsell says that in Morocco (middle Atlas region) "On met encore des bâts sur des boeufs pour faire des transports, et c'est là un usage fort ancien. Il se peut même que, dans certaines régions de la Berbérie, comme chez les Garamantes, comme chez les nègres de l'Afrique orientale, les boeufs aient servi de monture".<sup>2</sup> This statement is probably true, at all events as regards Morocco, but unfortunately Gsell cites no direct instance. For my own part I have to no purpose waded through about a score of works on Morocco, ancient and modern, but only in one or two have I found anything to repay me for my trouble. Höst writes: "Bulls are so docile and submissive that the Arabs plough with them, *ride* them and *load* them like they do horses and mules".<sup>3</sup> The Swede Gråberg di Hemsö made the same observation and writes almost word for word the same as Höst: "Die Stiere in Mogh'rib sind gewöhnlich sanft und die Beduinen brauchen sie zum Ackern, Tragen und Reiten wie Pferde und Esel."<sup>4</sup>

<sup>1</sup> F. R. Rodd, *People of the Veil*, p. 203. London 1926.

<sup>2</sup> S. Gsell, work above cited, V, p. 180. Paris 1927.

<sup>3</sup> G. Höst, *Efterretninger om Maroko og Fes*, p. 274. Kjöbenhavn 1779.

<sup>4</sup> J. Gråberg von Hemsö, *Das Sultanat Mogh'rib-ul-'Aksa oder Kaiserreich Marokko*, p. 87. Stuttgart 1833.

To this I will add a statement made by Haringman, who also says that the bulls in Morocco are very tame and "let themselves be used for everything"<sup>1</sup> It cannot be considered too rash to presume that in "everything" he also includes their being used as riding and load-carrying animals.

The authors just cited only refer to Morocco in a general way, whereas de Foucauld mentions a definite locality, viz. the territory of the Saian tribe, a few days' march due south of Meknes (which is south-west of Fez). This formed part of the *blad-es-siba*, the territories more or less independent of the Moroccan Government. Foucauld there met a tribal group of Saian on the march. "Les boeufs, chargés des tentes et des bagages, marchaient au centre, en longue colonne; les femmes les poussaient; derrière leurs mères étaient les enfants, les plus petits juchés par trois ou quatre sur le dos des mulets".<sup>2</sup> Foucauld further mentions that in these regions there are large herds of cattle, in which especially oxen are very numerous.

From Algeria and the regions farther east I am unable to adduce any instances out of the literature. At my request Lieutenant G. Moberg has on his journey in 1930 through Algeria been kind enough to make enquiries, though with negative result. Certain scientists in Algiers stated in reply to this questions that north of Hoggar (the exact spot being the Im Amgel oasis immediately north of Tamanrasset) one does not find bulls (oxen) used for riding. As this is, however, still practised in Morocco we have already seen, and it does not seem quite out of question that even to this day stray

<sup>1</sup> *H. Haringman*, Tagebuch einer Reise nach Marokko, p. XXIII. Weimar 1805.

<sup>2</sup> *Ch. de Foucauld*, Reconnaissance au Maroc 1883—1884, p. 46. Paris 1888. I would here add that in the extreme south-west of Morocco, at the large and fertile oasis of Qacba el Gjoua (between Tisint and Tatta) in the country of the Ida-U-Blal tribe, just north of Wadi Draa — that is to say at one of the large south-Moroccan border oases on the Saharan sand-dune region of Igidi — Foucauld observed cows used for pulling the plough, collaterally with horses, mules, donkeys and, when nothing else was available, women. Pack and riding animals are here seldom seen, he states.

instances might be found in the upper Mediterranean region to the east, if I am right in inferring that much from information given me by Mr. L. Th. Hyllander, Phil. Lic., who in April 1928 visited the oases of Gafsa in Tunisia (north of Shott el Jerid). He has kindly written me as follows: "Among domesticated animals there occurs a somewhat small-sized breed of cattle, which is not merely sporadically found but appears to predominate. These animals are mainly kept for draught purposes in agricultural work on the fields among the olive trees. Utilizing their flesh and milk is a matter of only secondary importance, and buttermaking is not much of a necessity in an oasis that so abounds in olive oil. The bulls are also trained to be ridden, and I saw a youth without further ado jump on to the back of his rather slow-moving steed, which he controlled and guided only by means of some sort of halter. No saddle did he use, but such appliances, especially made for the bulls, do however occur".<sup>1</sup>

From Libya I have not found anything bearing upon the present question, but there it would appear that cattle, at all events if we may judge by early travellers' accounts, in that country play a minor part among the domestic animals. Barth found cattle only in one place on the Gulf of Sidra (Wanderungen, pp. 332, 338), and concerning Fezzan Rohlfs says that the dwarfish cattle one finds there have always been imported from some outside territory and are hardly worth taking into account.<sup>2</sup> For 1913 the stock of cattle in Tripolitania was, however, estimated at 198,000 head.<sup>3</sup>

<sup>1</sup> In his treatise on Gafsa (*La Capsa ancienne, la Gafsa moderne*. Paris 1907) P. Bodereau presents nothing in support of Hyllander's statement, but neither does he directly contradict it. He says that the donkey is the pack animal par excellence, and that oxen are principally used in agricultural work. It may be that they ride their oxen to and from their fields.

<sup>2</sup> *G. Rohlfs*, *Reise durch Nordafrika 1865—67*. Petermanns Mitteilungen, Erg. h. 25, p. 6. Gotha 1868.

<sup>3</sup> *H. W. son Ahlmann*, *La Libye septentrionale*. *Geografiska Annaler*, p. 71. Stockholm 1928.

## 2. The Sahara and the regions bordering on the Sudan.

In Hoggar cattle are found in but small numbers, but the fact of oxen being used in its oases as riding animals has already been mentioned in passing. From the visit of the Danish expedition in Tit during 1923 (Tit is situated between Im Amgel and Tamanrasset) Olufsen relates that there were found zebu oxen imported from the Sudan. "A Tuareg entertained us by riding an ox of that kind at a gallop."<sup>1</sup> The ox was bridled with a strap through its nostrils (fig. 1). Lieutenant Moberg, who on two occasions, latterly for a couple of months in 1930, has made a stay among the Tuareg in Hoggar, has, however, told me that they themselves only seldom ride on oxen, but that their black slaves occasionally do so. According to Duveyrier the northern Tuareg (Hoggar and Azdjer) possess only a few oxen (*esoû*, pl. *tisita*). "Cet animal doux, intelligent, sobre, facile à manier, sert maintenant comme bête de somme".<sup>2</sup> He says nothing about them being used for riding.

The southern Tuareg (Oulliminden and others) occupying the territory down towards the Niger — in particular those groups of their tribe that only move about more restrictedly — possess large numbers of cattle (with or without a hump), which they use as pack and saddle animals. About this, Aymard writes: "Les mâles sont utilisés malgré leur lenteur et leur indocilité au transport des marchandises et des gens, parce qu'ils peuvent marcher deux ou trois jours sans être abreuvés, faculté précieuse dans un pays où les points d'eau sont éloignés les uns des autres".<sup>3</sup>

In Air and Damergu — where the cattle, according to Rodd, come from the south and are of the humped and ordinary varieties — the oxen are used "to a certain extent" as pack animals.<sup>4</sup> Foureau says as regards Air that in that country

<sup>1</sup> O. Olufsen, *Hos örkenens sönnar*, p. 104, photo. p. III. Kjöbenhavn 1924.

<sup>2</sup> H. Duveyrier, *Les Touareg du Nord*, p. 221. Paris 1864.

<sup>3</sup> A. Aymard, *Les Touareg du Sud. Le Tour du Monde*, 14, p. 140, photos pp. 135, 141. 1908.

<sup>4</sup> Rodd, work cited above, p. 203.

a certain proportion of zebus — and then always gelded — are used for transportation of merchandise and also as saddle animals.<sup>1</sup> Barth started his journey from the Tuareg in Air (in the Tintellust Valley) mounted on a bull, which he was to ride until he could get hold of a camel. His caravan numbered six camels, 35 donkeys and two bulls. That was the first time Barth rode an animal of the bovine tribe, and, it not being saddled but only carried on haphazard collection of luggage loosely strapped on its back, its load — and Barth along with it — before long dropped on the ground. While B. was still at Tintellust there arrived a caravan of traders from the Sudan, who carried all their luggage on pack oxen. Later on he set out with a Tuareg tribe; the men marching on foot or rode camels, whilst the women rode oxen or donkeys, on which they also carried their household utensils and the light material for their dwellings (mats and poles). Farther south, in the Tagama country (north of Damergu), B. met a caravan consisting of twenty sturdy zebus loaded with grain, and there he received a visit from "the queen of the desert", who arrived riding on a bull, a lady comely of face but so corpulent (hence by Tuareg notions a real beauty) that the bull "panted heavily under its great burden". Barth noticed great numbers of cattle in the Tagama country, but here horses were also plentiful.<sup>2</sup> At Damergu Barth's caravan was joined by "a noble lady of pleasant figure and excellently mounted on a powerful bull. She was seated in a wide and exceedingly comfortable saddle, or rather chair, of leather, which was strapped to the back of the bull".<sup>3</sup>

On his first expedition through the Sahara (1925) Mr. G. Moberg travelled from Tanut (in northern Damergu) to Zinder with bulls as transport animals. These carry about 56—60 kilogrammes. Moberg writes of them: "Naturally they are not so speedy nor possessing the same staying power as camels, and cannot be kept going during the hottest hours of

<sup>1</sup> *F. Foureau*, Documents scientifiques de la mission Saharienne, III, p. 1003. Paris 1903.

<sup>2</sup> *Barth*, work cited above, I, pp. 401, 407, 567, 597 and 601.

<sup>3</sup> *Barth*, II, p. 5.

the day. A bull will rarely do more than 3 or 4 kilometres an hour, and is besides a very unreliable transport animal. It often happens that without warning he rids himself of the load and gallops away. In the Sudan and on the Niger the animals are fairly broken in, but in Central Africa [French territory] they are often taken direct from the half-wild cattle herds that roam the savannahs. The natives, who are always disinclined to let out their animals on hire, often deliberately palm off on the traveller untrained or weak animals, which in the former case clear back to the herd, or in the latter often become overworked, and then the owner will demand damages".<sup>1</sup>

In the Zinder district it is principally the zebu that is used as a pack animal and for slaughter purposes, according to Foureau.<sup>2</sup>

In conclusion I here wish to add a statement made by Leo Africanus regarding the "kingdome of Agadez". He writes: "The residue of this kingdome lying southward is inhabited by shepherds and herdsmen, who dwell in certain cottages made of boughes, which cottages they carrie about upon oxen from place to place."<sup>3</sup>

### 3. *The Sudan.*

#### *Between the Atlantic Ocean and the White Nile region.*

From the Senegal district and its Arab-Berber nomadic population we possess several data, and, since the French have made oxriders appear on the Mauretanian postage stamps (fig. 2), this form of travelling may be presumed as characteristic of, at any rate, the southern parts (of Mauretania) even to this day. It seems that, among others, the native traders in rubber — the chief merchandise of the Senegalese Moors

<sup>1</sup> G. Moberg, Rädslans land. 16000 km. genom Sahara och Sudan, p. 271, photo. p. 273. Stockholm 1927.

<sup>2</sup> Foureau, work cited above, III, p. 1147; p. 1023 photo. of "Zébus porteurs" at Zinder.

<sup>3</sup> Leo Africanus, The History and Description of Africa. Hakluyt Soc., III, p. 829. London 1896.

(from certain species of *Acacia*) — make use of oxen for the transport of this article. In a work dating from the latter part of the 17th century there is a plate showing "comme les Mores vont sur leur chameaux, chevaux et boeufs avec leur marchandises"<sup>1</sup> and in another from the beginning of the 19th century there is a similar picture: "Les Maures du désert portent la gomme sur les bords du Sénégal".<sup>2</sup> In this picture are seen oxen loaded with bags of rubber. Of the nomadic "Moors" that Adanson got into touch with somewhere on the north bank of the Senegal, where they had arrived to sell cattle, he briefly relates that they broke camp and made for the hills in the north in order to get away from the flooding of the river in the rainy season. "Their tents had already been folded up; these they kept together with their household gear in bags of well-dressed leather. The bags were loaded on camels and oxen, which carried their shelters, movable property, women and children".<sup>3</sup> Golberry (of whose work I only have the German translation) gives detailed information regarding the three "Moorish" tribes of Trarza, Brakna and Uled-el Haghi, the lastmentioned "generally called Darmankas". These people, who occupy the oases north of the Senegal River, from the Atlantic and extending inland (as far as Bakel on the Senegal), possessed in Golberry's time — and at any rate some of them are still possessing — considerable herds of cattle (of a humped species). The oxen, according to Golberry, are strong and docile, and he has only praise for them. "Die Mauren bedienen sich derselben gern zum Reuten und ihr Gang is sanft; statt des Zügels zieth man ihnen ein Seil von Kameelhaaren durch die Scheidewand der Nasenlöcher, an diesem Seile heftet man kleine Stricke an, die wie ein Zügel zusammengebunden sind, sich durchkreuzen, und bis hinter den Buckel reichen; man sattelt sie, wie die Pferde, und

<sup>1</sup> *Dancourt*, *Les voyages du Sieur Le Maire*. Pl. at p. 76. Paris 1695. Cf. *J. Barbot*, *A Description of the coasts of N. and S. Guinea*, p. 46, Pl. 3. London 1732.

<sup>2</sup> *J. B. L. Durand*, *Atlas pour servir au voyage du Sénégal*. Pl. 30. Paris 1807. There is nothing in the letter-press about it.

<sup>3</sup> *M. Adanson*, *Nachricht von seiner Reise nach Senegal*, p. 53. Leipzig 1773.

so wenig man sie auch zum Gehen antreibt, so laufen sie doch sehr geschwind, und legen täglich, ohne müde zu werden, 12 bis 15 Meilen zurück. Sie beweisen gegen denjenigen viele Anhänglichkeit, der sie gewöhnlich wartet und reutet, und gehorchen seiner Stimme".<sup>1</sup> In another place Golberry says that "the kings, princes and wealthy persons" ride on horses or camels, and the lower classes on oxen. The usual load for a camel is 4—500 pounds, whilst an ox on an average carries 150 pounds. The rubber is packed in very large leather bags made from tanned oxhides.<sup>2</sup>

These "Moors" travelled with their pack oxen also on the southern bank of the Senegal River. In the account of his journey from St. Louis to the country of the Brakna people, Caillié (1824) frequently makes mention of pack and riding oxen. "Le boeuf porteur", he says, "est une espèce particulière; il a une bosse sur le dos; après l'avoir châtré, on l'habitué très jeune à porter des fardeaux, et pour le ployer à ce joug, on lui passe une corde dans les naseaux".<sup>3</sup> His first acquaintance with oxen of this kind Caillié appears to have made at a small place called Neyré, near Lake N'gher (Guier), whence he continued his journey in the company of one Moor and three Moorish women. "Ils étaient montés sur des boeufs porteurs". C., who was walking, was allowed to place his luggage on an ox, and when further on (past Podor) the caravan got hold of some additional oxen, he received for himself the mount of one of these (p. 58). Subsequently he obtained a riding ox of his own from the chief of a subsection of the Brakna, but he had hardly proceeded a quarter of a mile before the ox refused to go any farther, and he had to return to the chief's camp. Another ox was, however, given to him, and on that he reached the camping place of the tribe Oulad-Sidy (p. 127). In his work C. also relates how when

<sup>1</sup> S. M. X. Golberry, *Reise durch das westliche Afrika*, I, p. 194. Leipzig 1803.

<sup>2</sup> Golberry, I, p. 126. For detailed information about Moorish rubber trading, G. refers to Lamiral, whose work is beyond my reach (*M. Lamiral, L'Afrique et les peuples africains, consid. sous tous leurs rapports avec notre commerce et nos colonies*. Paris 1789).

<sup>3</sup> R. Caillié, *Journal d'un voyage à Timboctou et à Jenné*, I, p. 43. Paris 1830.



a certain Brakna "king" moved from one place to another the herds of cattle were escorted by men mounted on oxen, and the household utensils were loaded on oxen, while "the queen and the princesses" were placed on "des chameaux particuliers" (pp. 65, 67). C. also describes the native method of breaking in refractory oxen which refused to get along (p. 49).

Béranger-Féraud says that the Moors on the right bank of the Senegal, particularly the Brakna, are well off for riding and pack oxen, which, among other things, they use for carrying water to their encampment. But he has no such high opinion of their utility as Golberry: "Mais le boeuf est très inférieur au chameau, car s'il marche assez bien pendant un certain temps, en portant des fardeaux assez lourds, il se renverse de côté, trop souvent sans raison et subitement, jetant à bas le cavalier et les bagages. Or, c'est une grosse affaire que de la recharger et le remettre en route, car il faut d'abord le décharger complètement, puis le faire lever, le recharger encore, bien heureux s'il ne faut pas recommencer le même manège à quelques pas plus loin".<sup>1</sup>

Although Béranger-Féraud gives a fairly detailed account of the Moorish method of rubber-collecting, he makes no mention of the rubber being transported on the backs of oxen. But that, on the other hand, Gallieni does, who in the market place at Kayes (on the Senegal River) even saw Fulbe (Fulani) from the town of Bondu "montés sur des boeufs porteurs et venus pour vendre les gommes récoltés sur les bords de la Falémé".<sup>2</sup> (Falémé is a southern tributary to the Senegal, into which it empties itself east of Bakel).

When Mungo Park was making a stay at Benaum (presumably situated in the district S. E. of Koniakary), there arrived a Moroccan with five ox-loads of salt.<sup>3</sup> This had been fetched from Tishit, that is to say very far away north, some-

<sup>1</sup> L. J. B. *Béranger-Féraud*, *Les peuplades de la Sénégambie*, p. 105. Paris 1879.

<sup>2</sup> *Gallieni*, *Deux campagnes au Soudan Français. Le Tour du Monde* (58), p. 398. Paris 1889.

<sup>3</sup> *Mungo Park*, *Reisen im Inneren von Afrika*, p. 122. Berlin 1799.

where near the edges of the southern sand-dune region. Park does not, however, mention whether the salt had been carried all the way from up there on oxen.

From the recently mentioned place of Bondu it is not far to Portuguese Guinea, where in places oxen also appear to be used as riding animals. This, according to an ancient source, applies to the "Birames" (Burama) and the "Mandagos" (Mandjak), peoples living in the Papel country, subsisting on agriculture and cattle-rearing. "Da sie keine Pferde haben, reiten sie auf ihren kleinen Ochsen, deren Gelehrigkeit und Stärke überraschend sind".<sup>1</sup> For this piece of information I am indebted to Professor B. Struck. Further he writes to me, a few days before his departure for, as it just happened, Portuguese Guinea: "Bestätigt wird das aus neuester Zeit für den verwandten Nachbarstamm der Papel (Papel) durch eine Photographie von Hintz, die ein 15-jährigen Mädchen als Hirtin auf einem Rind reitend darstellt (Hackebeils Illustr. Nr. 11 v. 14. 3. 29 S. 5 u. JZ 5. Jg. Nr 11 v. 16. 3. 29 S. 261)".<sup>2</sup> Herr E. Hintz, to whom I have written, informs me that in Portuguese Guinea cattle are only found "north of Bafata". In the coastal region, he further says, riding on oxen is very rarely seen, and that was exactly the reason why he photographed that mounted Papel girl, a copy of which he has been kind enough to let me have for reproduction (fig. 3). From Professor Struck I have, after his arrival to Portuguese Guinea, received yet another contribution, in that he informs me (in a letter dated 15. 12. 1930) that when among the eastern Balanta cattle are driven to or from the grazing grounds, it is usual for the young men to ride them, generally singly, but at times two or three, on the same animal.

<sup>1</sup> *F. A. Ukert*, Vollständige und neueste Erdbeschreibung der Südhälfte von Afrika, p. 60. Weimar 1825.

<sup>2</sup> Letter from B. Struck to G. Lindblom, 6. 11. 1930. The journal referred to by S. I have not accessible.

From French Guinea<sup>1</sup> and the hinterland of Sierra Leone I have no data, but from the occurrence of pack oxen in the neighbouring territories it would appear very probable that also in these parts the practice obtains here and there, where the tsetse fly does not constitute an obstacle. According to Kürchhoff (see above) this is also the case, and he also mentions the hinterland of Liberia, although not either from there have I been able to obtain any authenticated instances (as, e. g., from Benjamin Anderson or W. Volz, both of whom have, as is well known, penetrated much farther eastwards).

As regards the Mandingo, too, my sources provide no information. As however in their capacity of being the leading trader people of the western Sudan they are very far-travelling, it is very probable that to a certain extent, at any rate, they are making use of pack oxen. And that this was the case at least in elder times I have in fact been informed by Staudinger. It is related by an early author (ca. A. D. 1500) that on ceremonious occasions the Mandingo king (mandimansa) used to ride an ox. "Wenn er absteigt, wird eine Ochsenhaut ausgebreitet, auf welche er sich niederlässt und ganze Nöpfe voll Mais und Reis verzehrt".<sup>2</sup>

Let us, however, revert towards the Sudan, beginning with Kayes and thence proceeding mainly eastwards. Near Kayes there is Medine, and to that place arrived Lenz, from Timbuctoo, after having for a great part of his journey used pack oxen. His last stage was from Kamedigo (situated near Njoro), whence he was joined by his host, a Fulbe, who placed five pack oxen at his disposal.<sup>3</sup> As it happened he had already

<sup>1</sup> Camels do not appear to be used so far south as Foutah-Jallon. Olivier, who however makes no mention of oxen as transport animals, writes: "On a essayé plusieurs fois d'introduire des chameaux dans le Foutah-Djallon, par le Sénégal; mais les essais n'ont jamais réussi, les animaux sont morts chaque fois promptement". *A. Olivier, De l'Atlantique au Niger par le Foutah-Djallon*, p. 151. Paris 1882.

<sup>2</sup> *F. Kunstmann*, Valentin Ferdinands Beschreibung d. Westküste Afrikas von Senegal bis zur Serra Leoa, im Auszuge dargestellt. Abh. d. Histor. Klasse d. K. Bayerischen Akademie d. Wiss. Bd. 8, p. 811. München 1856.

<sup>3</sup> *O. Lenz*, Timbuctu, II, p. 272. Leipzig 1884.

ordered some for the route Medinet—Bakuinit—Njoro, an order which he then cancelled (*Lenz*, II, p. 248). Previously he had hired pack oxen and horses at Bakuinit (situated between Sokolo and Njoro, with a mixed population of Arabs, Fulbe and negroes). At Sokolo (in the Bambara country) he hired from some Fulbe five pack oxen, which also did service as riding animals (II, pp. 219, 221, 230). At the start from Bassikunnu (north of Sokolo) he hired six pack oxen for his caravan from five men of that town, who were "half negroes, half Arabs", and also accompanied him. His followers rode the oxen, but he himself preferred using his donkey. His impressions of these pack oxen in their character of riding animals were not favourable: "Das Reiten auf diesen mit Waarenballen bepackten Rindern ist unangenehm und unsicher; man hat keine Sättel, sondern es werden dem Thier zwei mit Heu gefüllte Ledersäcke lose über den Rücken gelegt, darüber die seitwärts herabhängende Last, und oben darauf sitzt dann der Reiter. Wenn vollständig ebener und waldfreier Boden ist und die Thiere gleichmässig und ruhig fortschreiten können, dann geht es noch; sobald aber die Thiere unruhig gehen und durch Buschwerk aufgehalten werden, fällt häufig die locker aufgehängte Bagage herab, und das macht immer einen lästigen Aufenthalt. Ausserdem stossen die Thiere mit ihren Hörnern nach rückwärts, und da man weit vorn am Halse sitzt, so ist dies sogar gefährlich. Rinder gehen auch bedeutend langsamer als Kamele".<sup>1</sup> From Bassikunnu, and travelling southwards one cannot, *Lenz* says, any longer use camels, so that for transport purposes, as well as for riding, oxen and donkeys are almost exclusively used. At Timbuktu he noted herds of cattle (humped), camels and donkeys, and also horses. The cattle are used both for slaughter and for transport and riding (II, p. 125).

*Lenz*' route, which has here been given in the opposite direction, thus lay via Timbuktu-Bassikunnu-Sokolo-Medinet-Kamedigo and Medine, and for the whole of that distance oxen were used as transport animals.

<sup>1</sup> *Lenz*, II, p. 202.

In the regions abutting on Timbuktu the Tuareg lead a nomadic existence with their herds of cattle, as already mentioned in the preceding section.

From Djenne, Timbuktu's one-time rival as a trading centre, Bastard mentions from his visit pack oxen as being among the means of transport for the articles of export (e. g. millet and rice). Most of the transport was however done by canoes. The route for this lay southwards, to Bobo Diulasso, Kong, and Mossi. According to Bastard, a pack ox carries up to 80 kilogrammes. "Son dressage consiste, après lui avoir introduit un anneau dans le nez pour le dompter, à le rompre au repos d'abord, en l'attachant au pied d'un arbre pendant plusieurs journées, et, à le soumettre à la fatigue en lui plaçant sur l'échine des fardeaux qu'on augmente graduellement."<sup>1</sup>

Between Djenne and Segou, on the northern bank of the Niger and somewhere east of Sammanding, Park met a Moor and his wife, who were travelling towards Segou with salt loaded on oxen. They were themselves seated on the top of the loads.<sup>2</sup>

In the market place at Ulosebugu (80 km S. of Bamako) Binger saw pack oxen and donkeys for sale. They belonged to traders who had been unlucky in their enterprises, and therefore had to realize their assets.<sup>3</sup> In the account of his further journey to Kong, B. mentions that for long distances north-west of that place he did not meet any pack animals (I, p. 274), and as regards the traders at Kong he says that they carry their wares on their heads (p. 318). For his own part, however, he made his entry into Kong riding a pack ox (p. 288). On his journey from Kong north-wards to Diulasso he carefully noted the number of pack animals and carriers that he met on the road, arriving at the following figures: 62 pack donkeys, 12 pack oxen, and 303 human load carriers of all ages. The oxen were all carrying cakes of salt (p. 372).

<sup>1</sup> *G. Bastard, Une ville du Niger — Dienné. Le Tour du Monde*, 6, Appendix p. 138. Paris 1900.

<sup>2</sup> *Mungo Park*, p. 199. Berlin 1799.

<sup>3</sup> *Binger, Du Niger au Golfe du Guinée*, I, p. 28. Paris 1892.

Pack oxen and donkeys in the Sudan, it is stated by Binger, travel on an average only 16 km. a day. "Car il y a les mauvais passages, les animaux à décharger et à recharger, à contourner les villages", etc. (p. 88).

In northern Nigeria, as in the neighbouring parts of the French Niger territory, oxen (or bulls) appear to be commonly used as pack animals. In the foregoing we have with such — Mr. G. Moberg's transport animals — accounted for the route from the north down to Zinder. From that place Moberg continued with pack animals as far as Kano, which, by the way is a cattle trading centre, and thence on to Ngigmi (the north-western end of Lake Chad).<sup>1</sup> When Rohlfs passed this place, some of its inhabitants joined his caravan with their pack oxen.<sup>2</sup> About half-way between Zinder and Ngigmi is situated the Manga country, from whence I possess an instance in the form of a photograph showing natives riding on oxen carrying loads.<sup>3</sup>

From the district about the town of Kaura — between Kano and Sokoto — and thence further northwards, Staudinger mentions salt traders who travelled on foot or rode their donkeys or pack oxen. It would seem that they rest up during the hottest part of the day — from 9 to 4, he says — and travel chiefly in the night-time. S. himself travelled from Kaura with camels, but his native travelling companions had also pack-oxen.<sup>4</sup> At Madschi-Sari, a place immediately south of Kaura, S. met black Tuareg "auf hohen Dromedaren sitzend oder beladene Ochsen und Esel treibend". They came from "the oasis of Asbin" (Air?), and were salt traders. Beside the salt,

<sup>1</sup> *Moberg*, pp. 280, 295, 298, 303, 309. *C. Larymore* (A Resident's wife in Nigeria, p. 88. London 1908), also describes a journey with pack oxen from Kano northwards. The authoress is not pleased with this mode of transport: "They were our greatest trial; they had an inveterate habit of lying down, loads and all, in any shallow river they crossed, and once a pack ox lies down, nothing will move him an inch until he has rested himself". There are, however, in the same region both good and bad pack oxen.

<sup>2</sup> *G. Rohlfs*, *Quer durch Afrika*, I, p. 292. Leipzig 1874.

<sup>3</sup> *L. Roserot de Melin*, *Dans la région du Tchad avec la mission Tilho. Le Tour du Monde*, 15, p. 435. Paris 1909.

<sup>4</sup> *P. Staudinger*, *Im Herzen der Haussaländer*, pp. 390, 392. Berlin 1889.



which in the dry season they collected in the southern border region of the Sahara, and sold in the countries of the Bornu and the Hausa, they also brought thither horses, donkeys, pack oxen and camels.<sup>1</sup>

Now that we have reached the so-called Hausa territories, a word about the Hausa and their cattle-rearing activities may not be out of place. Tremearne states that the Hausa as a people do not keep cattle, "so beef, milk and butter have to be obtained from the pastoral peoples if in the vicinity, otherwise they do without or use substitutes".<sup>2</sup> On the other hand they breed horses, camels, and asses. The Hausa butchers buy oxen from the Fulani for slaughter, T. adds, but oxen are never used for *riding*, "as in Bornu". According to Denham, the Hausa carry their merchandise on their heads, while the natives of Bornu — to which I shall presently refer — convey their goods chiefly on donkeys and bullocks.<sup>3</sup> It may however be presumed that also a proportion of the Hausa merchants transport their wares on the backs of oxen. Ukert expressly states that the Hausa possess pack bullocks.<sup>4</sup> In this connection it might further be mentioned that among attempts at the translation of the word "Hausa" there is also one, although admittedly open to discussion, which gives it as "bullock-riders" (in the Hausa language *hau* means "to mount", and *sa* "bullock"). Thus the name would originally have been a somewhat disparaging appellation. According to the Daura tradition, Meek says, the aboriginal inhabitants of Hausaland rode cattle and were unacquainted with horses.<sup>5</sup>

Within the region occupied by the Hausa the use of pack oxen is at all events so widely spread that I do not consider it worth while to specify the exact extent to which the Hausa

<sup>1</sup> *Staudinger*, pp. 310 and 615.

<sup>2</sup> *A. J. N. Tremearne*, *The Ban of the Bori*, p. 88. London 1914. Cf. also *Tremearne*, *The tailed head-hunters of Nigeria*, p. 309. London 1912.

<sup>3</sup> *Denham and Clapperton*, *Narrative of travels and discoveries in Northern and Central Africa*. Appendix, p. 9. London 1826.

<sup>4</sup> *Ukert*, p. 422.

<sup>5</sup> Vide further *C. K. Meek*, *The Northern tribes of Nigeria*. I, pp. 85 sq. Oxford 1925.

themselves make use of them. As to the nomadizing Fulani, on the other hand, who may be said to range over the whole area, and almost exclusively subsist on cattle-rearing, there can be no doubt whatever. "The training of young bulls is done by tying two logs of wood (*salndu*) behind the animals, which they are forced to drag along until they become tame. They are then used as pack oxen (*dandi*). The bulls are not castrated nor do they have their nostrils pierced with a ring."<sup>1</sup> This statement refers in particular to the province of Yola in Nigeria. From the town of Yola, which is situated quite near the border of the former German colony of Cameroons, it is not far to the town of Garua, just across the old border-line. About the Fulani (Bororo), who lead a nomadic existence in the neighbourhood of the latter town, Dominik writes: "Die Männer reiten kleine Pferde. Auf dem Marsche sitzen die Borroro-Frauen und die Kinder auf den Stieren, die auch den gesamten Hausrat tragen".<sup>2</sup> From Mendif, a short distance farther on in a north-easterly direction (between Marua and Binder), Lenfant depicts a Fulani riding-ox (with a rope through its nostral septum).<sup>3</sup> In addition we have in the foregoing seen many instances of pack oxen owned by the Fulani in western Sudan.

From Bornu, and the Mandara country lying to the south of it, we have various information, and it may be supposed it most immediately concerns the Shoa Arabs, the leading cattle-breeders in these districts, but also the Kanuri and Kanembu tribes, and others (the Beriberi, as the Hausa call them). The account given by Denham and Clapperton sheds a good deal of light on the subject: "The beasts of burden used by the inhabitants in Bornu are the bullock and the ass. A very fine breed of the latter is found in the Mandara valleys. Strangers and chiefs, in the service of the sheikh or sultan, alone possess camels. The bullock is the bearer of all the

<sup>1</sup> E. A. Bruckebury, The "Bororo Fulbe" or Nomad "Cattle Fulani". Journal of the African Society, Vol. 23, p. 215. London 1924.

<sup>2</sup> H. Dominik, Vom Atlantik zum Tschadsee, p. 221. Berlin 1908.

<sup>3</sup> Lenfant, La grande route du Tchad. Le Tour du Monde, 1904, p. 582.



grain and other articles to and from the markets. A small saddle of plaited rushes<sup>1</sup> is laid on him, when sacks made of goats-skins, and filled with corn, are lashed on his broad and able back. A leather thong is passed through the cartilage of his nose, and serves as a bridle, while on the top of the load is mounted the owner, his wife, or his slave. Sometimes the daughter or the wife of a rich Shouaa will be mounted on her particular bullock, and precede the loaded animals; extravagantly adorned with amber, silver rings, coral, and all sorts of finery, her hair streaming with fat, a black rim of *kohol*, at least an inch wide, round each of her eyes, and I may say, arrayed for conquest at the crowded market. Carpets or tobes are then spread on her clumsy palfrey: she sits *jambe deçà jambe delà*, and with considerable grace guides her animal by his nose. Notwithstanding the peaceableness of his nature, her vanity still enables her to torture him into something like caperings and curvetings."<sup>2</sup>

On his journey from Kuka to Mandara, Vogel carried his baggage on pack oxen. Returning from Kuka, while in the district on Udje, in southern Bornu and N. W. of Mandara, he got into touch with the Shoa who were settled there, and to the information given about them above it may further be mentioned that on their wanderings they transport all their property on the backs of oxen (of the humped variety). Their most valuable belongings are put into leathern sacks on the top of which is seated the principal wife, while slave girls follow behind with the less valuable household goods: poles, crockery, and other domestic utensils. A chieftain's wife sits under a tent-like hood, and is mounted on a riding ox with superior accoutrements. The men accompany the women on horseback, or driving the herds of sheep or goats.<sup>3</sup>

When Rohlf's started from Kuka with Mandara as his

<sup>1</sup> *Meck*, who describes the distinctive breeds of the Nigerian cattle (I, p. 118), states that the "big coarse oxen" of Bornu are used for pack transport, their backs being protected by saddles of plaited grass.

<sup>2</sup> *Denham and Clapperton*, p. 321.

<sup>3</sup> *E. Vogel's Reisen in Central-Afrika* (nach den Originalquellen bearbeitet von H. Wagner), pp. 244, 255. Leipzig 1860.

destination, he and his travelling companions were riding two small horses, while the baggage was carried on three pack oxen. As regards their good and bad points he says: "Letztere Thiere, *kanemo* genannt, kosten nur 2 Thaler das Stück und tragen mindestens ebenso viel wie ein Pferd, während sie mit dem magersten Futter vorlieb nehmen. Leider lassen sie sich schwer lenken, und ein anderer Uebelstand ist, dass man keine praktischen Sättel für sie hat; die Last wird ihnen in zwei grossen Ledersäcken über den Buckel geworfen; führt nun der Weg durch dichtes Gebüsch, so kommt es oft vor, dass die Säcke sich abstreifen und nach hinten herunter fallen."<sup>1</sup> When, after his return to Kuka, Rohlf's set out for Adamaua he bought himself another horse and two more pack oxen.

In the great market place at Kuka, Nachtigal every day saw a multitude of oxen for sale, "these being the best pack animals for journeys in these parts". In the northern part of the market there used to congregate the Kanembu, who "auf den ihnen eigenthümlichen Kuri-Rindern aus den nahe am Rande des Tsade gelegenen Dörfern Maduari, Kaua, Binder und Beri, aus den Ortschaften des untersten Laufes des Flusses von Joo, aus Barua und Ngigmi und aus dem Districte Dutschi westlich von Kuka am Komodugu Joobe die Erzeugnisse ihrer Arbeit zu Markte bringen."<sup>2</sup> *Togurtschi*, according to Nachtigal (p. 700), is the local name for such merchants which with a few pack horses, oxen or donkeys travel the neighbouring countries as well as more distant regions.

When Nachtigal journeyed from Kuka to Bagirmi he made use of pack bulls. Foureau gives expression to his admiration of the handsome bulls of Bornu, "many of which, especially those which serve as pack animals, are castrated."<sup>3</sup> He publishes a picture of a flock of negresses riding on loaded oxen (p. 657).<sup>4</sup>

Not far south of the Mandara country lies Binder, men-

<sup>1</sup> *G. Rohlf's*, *Quer durch Afrika*, II, p. 13. Leipzig 1875.

<sup>2</sup> *Nachtigal*, I, p. 682.

<sup>3</sup> *F. Fourcau*, *D'Alger au Congo par le Tchad*, p. 632. Paris 1902.

<sup>4</sup> The same picture, but clearer, is found in *Fourcau*, *Documents scientifiques de la mission saharienne*, III, p. 958. Paris 1903.

tioned above in connection with the Fulani, and immediately south of this place, and neighbours of the Fulani, live the Mundang (Mundan). They are breeders of horses and cattle (humped). The bulls are used as pack animals. "Ils se conduisent très facilement et sont très dociles".<sup>1</sup> North-east of the Mundang and east of Binder are living the Tuburi, who also possess cattle. Lenfant shows a photograph of a native riding bareback on a bull which is being led by another man by means of a rope hitched round its horns.<sup>2</sup> He also reproduces (on p. 575) a photograph of pack oxen from "the lower Shari" (exact locality not given). North-east of the Tuburi there live the Bana, to whom cattle-rearing is almost as important as agriculture. Hagen, however, expressly states that they do not use cattle for carrying loads.<sup>3</sup> But on the other hand they pierce the nasal cartilage on bulls and cows that are very wild, and pull a rope through it. South-east of the Mundang is the country of the Lakka, who possess no cattle. Here, moreover, the tsetse fly occurs. Considerably farther south of this, the French, however, appear to have made use of oxen as riding animals, even down towards the Ubangi. Foureau used them between Ft. Crampel (Gribingi) and that river. Between Ft. Crampel and Koussri (situated on the Shari, directly opposite to Ft. Lamy) he sent out a flank patrol numbering 109 mounted men, half of them on horses and the rest "montés à boeuf".<sup>4</sup> Of the oxen he says that, as compared with horses, they are not very fast, but very docile. On occasions, however, they may be very capricious: "ils s'arrêtent brusquement et refusent d'avancer jusqu'à ce qu'un homme à pied se mette en mouvement devant eux; ils repartent alors sans difficulté tandis qu'ils restent sourds à tout appel de bâton ou d'éperon." (p. 783).

As to whether the French, prior to the advent of motor cars, also used oxen as riding animals here and there in the French

<sup>1</sup> *E. Brussaux*, Notes sur les Moundans. Bulletins et Mémoires de la Société d'Anthropologie, Sér. 5, T. 8, p. 290. Paris 1907.

<sup>2</sup> *Lenfant*, p. 529.

<sup>3</sup> *G. v. Hagen*, Die Bana. Baessler Archiv, 2. p. 90. Leipzig 1912.

<sup>4</sup> *Foureau*, D'Alger au Congo, pp. 779, 817.

Congo I am not able to say, but the idea appears at all events to have been discussed. Thus Bourdarie gives instruction as to the method of breaking in bulls for travel in the French Congo.<sup>1</sup> It would not appear as if the local natives used cattle for load-carrying or riding.

After this digression southwards, let us again turn to the north, to the Shari basin and Bagirmi, whence we shall find information which connects fairly closely with what we have already gathered from the Logone region. When Kumm was at Ft. Archambault (on the upper Shari) he bought horses and 25 pack oxen at Milfi in Bagirmi (some eight days' journey away) and thence marched to Ndele (S. E. of Ft. Archambault).<sup>2</sup> MacLeod used oxen for transport in Bagirmi, and in connection with his visit to Tchekna (immediately S. of Masenia) he says of these animals: "They are admirable for the purpose, doing 27 miles a day . . . It is an idiosyncrasy of these animals that they will not move unless they are ridden, and they each carry two loads, as well as a rider."<sup>3</sup> In this we have come upon an interesting piece of information which I have not found in any of the authors cited above, namely that the oxen refuse to move along without a rider on their backs. Even if in many cases this may be true, it does not in my opinion very well explain the practice of riding on loaded oxen, but the fact of the matter is presumably that many oxen have become so accustomed to carry, in addition to their load, also a rider, so that they are loth to get on the move without the latter.

About the bulls in Kanem Foureau says that here, as in Bornu, they are "castrés et très doux".<sup>4</sup> Lieutenant G. Moberg transported his baggage on the backs of bulls from Moussoro in Kanem (S. of Mao) via Ft. Lamy to Massenia,<sup>5</sup> thence between the two French posts of Mongo and Abu-Deia, and

<sup>1</sup> *P. Bourdarie*, *Les Fermes d'Essais aux Colonies. Le Tour du Monde*, Appendix, p. 19. Paris 1899.

<sup>2</sup> *K. Kumm*, *From Hausaland to Egypt*, pp. 57, 108, 145, 176. London 1910.

<sup>3</sup> *O. MacLeod*, *Chiefs and Cities of Central Africa*, p. 151. London 1912.

<sup>4</sup> *Documents scientifiques*, III, p. 1032.

<sup>5</sup> *Moberg*, pp. 344, 347.

again on his return journey from Mongo, via Abescher, to the British border station at Geneine. East of this place the country was found to be "rather poorly watered, and unsuitable for bulls", so that Moberg for his journey to El Fascher had to resume the use of camels (*Moberg*, p. 417). Regarding his experiences of pack bulls he, *inter alia*, writes: "On account of it being difficult to hire without loss of time the requisite number of transport animals I was obliged to buy some bulls here and there. They frequently ran away from me, and could not be found again, or in cases they were even simply stolen. My luggage was in parts very bulky, though not particularly heavy, and thus I needed as many as 60 transport animals. Each animal requires a rider mounted on the top of the load and balancing it, so as to keep it from falling off . . . Only on the road from Mongo to Abescher, some 400 km, did I lose fourteen bulls".<sup>1</sup>

Among nomadizing and pastoral Arabs between Mongo and Abu-Deia Moberg saw pack and riding bulls bedizened with leather harness set with cowrie shells (cf. fig. 4). Even their horns were cased in cowrie-studded leather. Specimens of these ornaments have been brought home by M. to the Riksmuseum (fig. 5). It would therefore seem as if Nachtigal's statement<sup>2</sup> no longer holds good, viz., that in Wadai cattle are never used as riding animals and but seldom for transport, by reason of there being a sufficiency of camels and donkeys. In this connection I may mention that Nachtigal (III, p. 104) further gives the information that from Abescher it was possible for trade caravans to travel with donkeys or pack oxen to Runga and Kuti, countries south of Wadai. Camels, he explains, will there not last very long.

Before going any further I think that a number of the names quoted by Barth for the "common ox of burden" in different Sudan languages might usefully here be interpolated for the sake of completeness:<sup>3</sup>

<sup>1</sup> *Moberg*, p. 411.

<sup>2</sup> *Nachtigal*, III, p. 187.

<sup>3</sup> *H. Barth*, Sammlung und Bearbeitung Central-Afrikanischer Vokabularien. 3, p. 186. Gotha 1866.

Kanuri <i>kanemo</i>	Logone <i>dur-mi</i>	Hausa <i>takérkeri</i>	Wandala <sup>1</sup> <i>kaue</i>
Fulfulde <i>dande</i>	Bagrimma <sup>2</sup> <i>mang digi-n-ále</i>	Songai <i>yegi (karo)</i>	Maba <sup>3</sup> <i>dek</i>

In Darfur and Kordofan, especially in the southern parts, oxen (bulls?) are largely used as transport animals because camels do not thrive there.<sup>4</sup> In the first place may here be mentioned the nomadizing Baggara (Baqqara, Arabic: *bacquar*, 'bovine animal'), an appellation which covers a large number of tribes. With their cattle they range over a wide region, from the White Nile as far west as Lake Chad. Tracts infested by tsetse or deficient in water are however avoided by them. Although they also possess horses, their bulls, Seligman says, "which are well-trained and will carry from between 200 to 300 lb.", constitute "their most valued possession, and it is on these that their children and baggage are transported during migration".<sup>5</sup>

The Baggara — the "bull-riders" — are often referred to in accounts from these regions. According to Pallme, they possess humped oxen with short horns. "Man bedient sich der Ochsen auch vorzüglich zum Reiten und zum Lasttragen; steckt diesen Thieren ein Leitseil durch die Nasen und bildet auf diese Art einen Zaum. Die Ochsen werden schon in der frühesten Jugend hiezu, und zwar von Kindern, abgerichtet. Diese müssen jedoch mit einer besondern Geduld die Dressur vornehmen, denn bevor ein so junges Kalb einen Buben auf dem Rücken ruhig sitzen lässt, sind öfters Monate erforderlich, und die Buben werden oft hundertmal abgeworfen, ehe

<sup>1</sup> Inhabitants of the Mandara country.

<sup>2</sup> Inhabitants of Bagirmi.

<sup>3</sup> A tribe unknown to me. Barth, however, got the word at Massenia, the capital of Bagirmi.

<sup>4</sup> According to Marno (work cited above), this country is already a couple of hours' march south of El-Obeid unsuitable to camels, and this even in the dry season. N. and N. W. of El-Obeid there are again tracts that are eminently suitable to camels.

<sup>5</sup> C. G. Seligman, *Races of Africa*, p. 241. London 1930.

es ihnen gelingt, ein solches Thier vollkommen abzurichten."<sup>1</sup> Petherick describes how Baggara women arrive in the market place in El Obeid riding on oxen loaded with bundles of wood and other commodities. "A bridle is passed through the cartilage of the animal's nose".<sup>2</sup> Latterly Bernatzik has described his meeting with a party of Aulad Hamid, an important Baggara tribe, on the march, whom he came across in the neighbourhood of Kaka on the White Nile (not far N. of Fashoda). Both the men and the women, the latter armed with their long and broad-bladed spears, were mounted on bulls. Each bull carried for a saddle a thickly-woven mat of straw, to which the load was tied, its rider perched on the top of it all.<sup>3</sup> A more detailed description is given by Domville-Fife of the saddles which he saw at El Obeid, in that he says that they "consist of a hoop-shaped straw mat with a V-shaped wooden tree".<sup>4</sup> Possibly this applies to Baggara bull saddles in general, although other authors here cited make no mention about it.

A couple of American travellers visited a few years ago the Messeria (another Baggara group) to the west of the Nuba hills. The men rode on horses and the women on bulls, which were also carrying all the household equipment.<sup>5</sup>

Although I have not discovered any authenticated parallel elsewhere, it may here be mentioned that Domville-Fife was

<sup>1</sup> *J. Pallme*, Beschreibung von Kordofan und einigen angränzenden Ländern, p. 145. Stuttgart 1843.

<sup>2</sup> *J. Petherick*, Egypt, the Soudan and Central Africa, p. 300. London 1861. C. Meinhof shows a photograph of loaded and ridden oxen at El Obeid (Eine Studienfarth nach Kordofan, Taf. 11:1. Hamburg 1916).

<sup>3</sup> *H. A. Bernatzik*, Zwischen Weisssem Nil und Belgisch Kongo, p. 89, Taf. 166—169. Wien 1929. A brilliant photograph of a bull-riding Baggara is published by Buschan in "Sitten der Völker", III, p. 86. Stuttgart 1916. Cf. also *J. de Beaucorps*, Sur le Nil Blanc: de Khartoum à Gondokoro. Le Tour du Monde 1909 (15), photograph p. 595.

<sup>4</sup> *C. W. Domville-Fife*, Savage Life in the Black Sudan, p. 205, photo of rider p. 240. London 1927.

<sup>5</sup> *M. C. Cooper & E. B. Schoedsack*, Two fighting tribes of the Sudan. The National Geographic Magazine, Oct. 1929, pp. 469, 472 (photograph). Washington 1929.

told (*loc. cit.*) that "the Besseria Arabs of Dar Homr employ bull cavalry against the Dinka tribes of the Bahr-el-Arab region".

The citation which follows only mentions "Arabs of southern Kordofan", owners of vast herds of cattle, but it may safely be assumed that it is the Baggara it refers to: "the bulls are used for pack purposes and are extremely docile. The saddle is made of two pads of straw, on which a load of 200 to 250 lbs. is placed. No girth is used but each animal is ridden by a woman or child who balances the load. When the ground is boggy there is no animal to equal them, but, as they are never shod, they soon get footsore on hard ground. They are only watered once a day, and can go everywhere in the south, except near the Kowalib hills, where the tsetse fly is prevalent".<sup>1</sup> Undoubtedly, too, it was Baggara oxen that Felkin used for his baggage in southern Darfur, between the Bahr-el-Arab and Kalaka (S. of Dara). On their backs they carried huge grass bolsters, on the top of which the loads were tied, and the driver, who was armed with a broadbladed spear, sat between the loads. Those animals, Felkin says, were fine-looking and strong, and an ox, when amply fed, carries beside his driver 500 lbs. for 5 to 6 days, while his marching rate is 2 to 2½ miles an hour.<sup>2</sup>

The negro peoples living to the south of the Baggara do not use cattle as a means of transport. Presumable this applies to the Nilotes, broadly speaking. The Dinka possess large herds, but Schweinfurth expressly states that their animals are too weak and under-bred for carrying loads.<sup>3</sup> This notwithstanding, even in the Nilotic region pack oxen have been used in so far as slave-hunters coming from Kordofan and Darfur often used to mount themselves on such animals

<sup>1</sup> *Watkiss Lloyd*, Notes on Kordofan Province, p. 266. *Geographical Journal*, 35. London 1910.

<sup>2</sup> *R. W. Felkin*, *Aufzeichnungen über die Route von Lado nach Dara*. Petermanns Mitteilungen, Bd. 27, p. 97. Gotha 1881.

<sup>3</sup> "The first attempt to teach them pack transport work on the Arab model failed". *G. W. Titherington*, The Raik Dinka of the Bahr el Ghazal Province. *Sudan Notes and Records*, vol. X, p. 176. Khartoum 1927.



from among the Baggara. In the Golo country (W. of the Bongo district) Schweinfurth continually met small caravans of this description (p. 474). Because, it should be noted, donkeys, mules, horses and camels soon succumb to the climate.<sup>1</sup> Turks, as also other traders and slave-hunters, used here and there in their *zaribas* keep riding oxen, as is also evident from accounts of travel in the White Nile region. Occasionally these animals were obtained from native herds and trained for the purpose, in which case one had the advantage of their being acclimatized. According to Marno, however, such riding oxen were of rare appearance in the *zaribas* of the Nilotic region, and counted as their treasures.<sup>2</sup> Even European explorers have used oxen as riding animals. Such was the case with Baker, who at Obbo, in the southern part of the Latuka country, for himself and his wife purchased and trained three oxen in lieu of horses. The Turks, too, in whose company B. journeyed southwards, possessed riding oxen, and one of these was bought by B., "the best ox that I have ever ridden". When he had travelled south into Unyoro as far as the Victoria Nile, all the oxen had however succumbed to tsetse fly with the exception of one, and that was by then half dead.<sup>3</sup>

One solitary instance of the use of ox-riding I have gathered from as far south as the Alur country on the north-west coast of Albert Nyanza. It is in the form of a photograph showing an officer of the Belgian station of Mahagi mounted on a zebu ox. The practice must have been introduced by the Belgians, and pertains with all certainty only to them, and not to the natives.<sup>4</sup>

Turning again towards the north, we have it on the authority of Rüppell that the Nuba, occupying the country about and north of El Obeid (who are Mohammedans, as opposed to the

<sup>1</sup> G. Schweinfurth, *Im Herzen von Afrika*, pp. 85, 450, 500; p. 473 a drawing of slave-traders (gellaba) from Darfur mounted on oxen. Leipzig 1918.

<sup>2</sup> Marno, p. 355.

<sup>3</sup> S. W. Baker, *The Albert N'Yanza*, II, pp. 1, 12, 13, 146, 155. London 1866.

<sup>4</sup> Demuynck, *Au pays de Mahagi; région du Lac Albert et du Haut-Nil*, p. 122. Bulletin Société R. Belge de Géographie. Bruxelles 1908.

Nuba of the mountains S. of El Obeid), possessed large herds of cattle, while with them camels were rare. Their oxen they used for load-carrying.<sup>1</sup> Further it may be added, as regards Kordofan, that Pallme, although without quoting any definite instance, states that there even agricultural tribes use oxen as pack and riding animals because they are so poor in horses and camels. At villages where the cattle herds are large, the herders are wont to ride: "Wenn nun die Heerden des Dorfes ausgetrieben werden, so reitet der Hirt auf einem Ochsen derselben entweder vor oder nach, jedes Thier hat seinen eigenen Namen und wird von dem Hirten, wenn es zurückbleibt oder von der Heerde abseits tritt, angerufen. Diese Thiere hören es genau und folgen gleich. Entfernt sich aber eines zu weit von der Heerde und hört den Ruf des Hirten nicht, so reitet dieser demselben nach und bringt es ohne Mühe zurück. Diese Hirten reiten sehr gut und man muss sich verwundern, wenn man einen derselben auf den meistens sehr jungen Ochsen im vollen Galopp daher sprengen sieht. Sie sitzen auf dem blossen Rücken des Thieres und haben nur eine Schnur durch die Nasenlöcher gezogen, welche ihnen als Zaum dient."<sup>2</sup>

Farther north in Kordofan cattle do not appear to be used as riding or load-carrying animals. At all events, Seligman makes no mention of such a thing from the Kâbâbîsh. These Arabs possess cattle, but on their migrations women as well as the baggage are carried on the backs of camels.<sup>3</sup>

For the sake of completeness it should also here be mentioned that the fellahin of Egypt make their buffaloes carry loads, as, e. g., in bringing forage from the fields to the village. Women and children may frequently be seen riding these animals, and even crossing the Nile on their backs.<sup>4</sup>

Let us now continue across the White Nile to its eastern bank, where natural conditions are the same as on the western.

<sup>1</sup> *E. Rüppell*, Reisen in Nubien, Kordofan und dem peträischen Arabien, p. 143. Frankfurt am Main 1829.

<sup>2</sup> *Pallme*, p. 55.

<sup>3</sup> *C. G. and Brenda Z. Seligman*, The Kâbâbîsh, a Sudan Arab tribe, p. 117. Harvard African Studies, Vol. II. Cambridge 1918

<sup>4</sup> Cf. eg. *A. E. Brehm*, Reiseskizzen aus Nordost-Afrika, II, p. 19. Jena 1862.



Even here a proportion of the local tribes use pack oxen. Such is the case between the Atbara and the Blue Nile, at all events among the Shukurieh "Arabs". At El Quedaref (Gedaref) Count v. Wickerode saw cattle (humped) which carried water and other loads, and also were ridden.<sup>1</sup> There the population, he says, consisted of Shukurieh, Rakubin, and Djialin Arabs. Junker, too, noticed at Gedaref some Shukurieh with numerous herds of cattle: "Eine Menge schöner, starker Ochsen fiel mir auf, die wie Esel oder Maultiere geritten wurden und mit diesen wohl gut Schritt zu halten vermögen. Die werden auch zum Tragen von Lasten verwendet; nach Art der Kamele abgerichtet, knien sie nieder, wenn sie beladen werden sollen".<sup>2</sup> In the neighbourhood of Gallabat (at the village of Schech Mariot, which lies a short distance north of G. and west of the Atbara) Wickerode noticed many bulls that, among other things, were used for carrying water and for riding. "Ein Strick, an einem durch die Nasenknorpel des Thieres gezogenen Ring befestigt, diente zur Lenkung. An Rindvieh und Ziegen ist hier Ueberfluss, aber Kameele mangeln, ein Umstand, der in der Lage des Ortes und dem Futter der Gegend seinen Grund haben soll."<sup>3</sup> Even in the central portion of El Gezireh (between the White and the Blue Niles, and S. of Khartum) trained oxen are, according to Marno (cf. work cited above), often used for riding and transport.<sup>4</sup>

#### 4. *Abyssinia, and neighbouring countries.*

References to the use of pack oxen, etc., from this part of Africa appear to occur only sparingly in the literature. Such as I have found are, however, sufficient to show that in times of the past oxen were in places used as transport animals, and that even to this days the practice may be observed. If one cared to give the necessary time to searching all existing

<sup>1</sup> C. Krockow von Wickerode, *Reisen und Jagden in Nord-Ost-Afrika*, I, p. 146. Berlin 1867.

<sup>2</sup> W. Junker, *Reisen in Afrika 1875—76*, I, p. 136. Wien 1889.

<sup>3</sup> Wickerode, II, p. 25.

<sup>4</sup> Marno, p. 351.

early works on Abyssinia and Eritrea, more cases in point would presumably be found than those I am here citing.

The Portuguese embassy headed by Rodrigo de Lima which (in 1520) visited Prester John, the then monarch of Abyssinia, on several occasion obtained, according to Alvarez' account, pack oxen for their baggage from the vassals of the king. For themselves the Portuguese were supplied with mules to ride. Their line of march lay southwards from Arkiko (Arquiquo), the site of the present Massawa, and to begin with their loads were carried on camels. According to Alvarez, it was at times difficult to collect a sufficient number of pack oxen. And with these it was often troublesome to force a way through the dense brushwood.<sup>1</sup>

In the account of the Portuguese expedition to Abyssinia during 1541—43 passing reference also to pack oxen is here and there made. In the baggage train of the Portuguese troops oxen were at times used as carriers: "There were many laden oxen with goods of the army".<sup>2</sup>

When Rüppell with a caravan travelled from the Takaseh river (the eastern main tributary of the Atbara) through the Simen (or Semien) district in northern Abyssinia, a merchant of the caravan, not being able to obtain a mule, bought himself an ox, on which a heavy load was placed. That animal, which cost one-third of the current price of a mule, "erwies sich bis nach Gondar als ein vortreffliches Lastthier; nur hat diese Art der Fortschaffung den Nachteil, dass jeder beladene Ochse einen eigenen Treiber erfordert, indem das Thier sonst sehr oft stehen bleibt".<sup>3</sup> Yet another instance is mentioned by Rüppell from the journey in question. When,

<sup>1</sup> Kurze und warhafftige Beschreibungen aller gründlichen erfarnes von den Landen des mechtigen Königs in Ethiopien, den wir Priester Johan nennen... durch den Herren Franciscum Aluares beschrieben, pp. 89, 106, 110, 285, 1567. Cf. Narrative of the Portuguese Embassy to Abyssinia during the years 1520—1527 by Father Francisco Alvarez. Hakluyt Soc. No. 64, pp. 21, 38, 42. London 1881.

<sup>2</sup> The Portuguese expedition to Abyssinia in 1541—43. As narrated by Castanhoso. Hakluyt Society, Ser. II, Vol. X, pp. 23, 154. London 1902.

<sup>3</sup> E. Rüppell, Reise in Abyssinien, I, p. 393. Frankfurt a. Main 1838—40.

on the road between Adua and Massawa, he descended through the Taranta pass (near the town of Halai in Eritrea) "begegneten wir auf diesem beschwerlichen Weg einem den Schoho-Beduinen gehörenden Zug von etwa tausend Ochsen, die aus den niederen Thälern in die höher gelegenen Regionen geführt wurden, weil in den Niederungen der Küstenthäler in jener Jahreszeit alles Gras vertrocknet ist. Diese Thiere waren durchgehends wohl genährt und zum Theil mit Körben voll Seesalz beladen, die von Zula hergebracht wurden um in Tigré gegen Durra und anderes Getreide vertauscht zu werden".<sup>1</sup>

About the Mensa people (in Eritrea) Brehm says that the important pass through their country is at any rate partly negotiable by camels and of course also by mules, but that the Mensa use oxen as transport animals, and "laden ihr geringes Hab und Gut dem in Hochgebirg gebornen und grossgewordenen, wie Antilopen kletternden Ochsen auf den Rücken".<sup>2</sup> B. also emphasizes (p. 144) that his load camels for hours were delayed by even slight gradients in the road, up which the loaded oxen of the Mensas ascended as easily as donkeys or mules. In another part of the same book Brehm gives further account of the pack oxen of the Mensa, and how even women ride on oxen: "Ihr wenig bewegliches Gut führen die Herden selbst mit zur Tiefe hernieder; denn der Ochs ist, wie ich ebenfalls schon bemerkte, in Nord-Ost-Äbessinien das bevorzugte Lastthier. Er trägt in den ledernen Säcken das Getreide, welches man im Thale von Mensa erntete, zum Dorfe empor; er schleppt das Wasser herbei, welches die Hausfrau in ihrer dürftigen Wohnung verbraucht; ihn belastet man mit den wichtigsten Bestandtheilen der Hütte des Mensa, mit jenen geschmeidigen Stäben, aus denen man die Wände und Lagerstättet zusammensetzt, sowie mit den wenigen Kochgeschirren, welche man braucht; er dient sogar als Reitthier für das zartere Geschlecht der Frauen."<sup>3</sup>

<sup>1</sup> *Rüppel*, II, p. 307.

<sup>2</sup> *A. E. Brehm*, *Ergebnisse einer Reise nach Habesch*, p. 41. Hamburg 1863.

<sup>3</sup> *Brehm*, p. 177.

When Major Thürheim journeyed from Massawa towards the north-west and thereafter negotiated the ascent of the Bogos mountains, he was obliged, on account of their steepness and the bottomless road, to abandon the camels he had brought from the coast and have his baggage carried to the top by oxen and human porters, requisitioned from Mensa.<sup>1</sup>

For information as to the present state of things in the Mensa country I am indebted to Pastor K. G. Rodén, a former member of the Swedish mission out there, and domiciled at Upsala. What he writes to me agrees in the main with Brehm's statements:

"So far as I, during a residence of 30—40 years in Eritrea, have been able to observe and learn, in the country of the Mensa and other districts of the Eritrean highland oxen and even bulls are used, primarily for ploughing, but also for the transport of grain and meal and all sorts of household gear. Then it frequently happens that, after a big bag of grain has been loaded on, in addition a woman with a child in her lap is given a seat on the top of it, for the oxen carry twice as heavy loads as donkeys or small mules. As a rule it is usual, when a person is riding on an ox, that a man walks in front and leads the ox, which otherwise might take too great liberties as it goes along. When the nomads change their camps, in the highlands oxen are especially indispensable, for on them are then loaded both mats and the curved poles that support the palm-leaf mats of their temporary dwellings, and in addition the household gear as well as the wives and children, who in this manner are given a lift to the new encampment. A man who is sick may also have to be content with riding on an ox in case no mule, or even a donkey, is to be had. But, unless ill, a man will generally prefer travelling on foot to riding an ox, although it may not exactly be looked upon as a means of transport undignified to a man."

"No saddle in the proper sense is used for the oxen, but only a thick cover to protect its back. For mules and donkeys

<sup>1</sup> *Th. v. Heuglin*, Major Graf L. Thürheim's Reise in Afrika. Petermanns Mitteil. Bd. 5, p. 363. Gotha 1859.

there are a sort of simple saddles, but when grain, flour or other soft commodities are loaded on them, it can only be done by using a thick underlay as in the case of the oxen. When a person is riding on an ox, somebody — as has been mentioned — has to walk ahead of it and lead it. On the whole it may be said that oxen are not much used as riding animals in Eritrea.”<sup>1</sup>

Another member of the Swedish mission among the Mensa, Rev. N. Dahlberg, of Stockholm, Mission Director, who does not, it is true, have behind him an equally long experience of Eritrea as Pastor Rodén, has informed me that it is only rarely one sees any pack oxen there. For his own part he only observed them once, namely as he was descending the Ira Mountain, which divides the lowland from the highland. Another Swede whom I have asked, viz. Mr. Axel B. Svensson, a Stockholm journalist, who visited Abyssinia in 1930, only on one occasion saw a pack ox (loaded with sacks), and that was in a street in the very city of Addis Abeba, where, however, it seemed to attract attention.

As regards the Barea and the Kunama, Munzinger expressly states that they exclusively use donkeys as pack animals, "da die Ochsen hier im Lande nicht belastet werden".<sup>2</sup>

Heuglin only mentions quite briefly that in Abyssinia bulls are used for ploughing, but more rarely for carrying loads as in that country the mule is the universal pack and riding animal.<sup>3</sup> All Abyssinian travellers appear to be of opinion that there the horse, at any rate in the mountain regions, is of less importance as a riding animal than the mule, which, although rather undersized, is very strong and wiry (Cf. *Brehm*, p. 141). In my opinion, a very good summing up of this question — though one might have wished to see a fuller account of bulls (oxen) used as pack animals — is given by Combes and Tamisier when they write: "Les bêtes de somme

<sup>1</sup> Letter from K. G. Rodén to G. Lindblom, dated 29. 5. 1930. In his book "Le tribu dei Mensa, storia, legge e costumi ecc." (Stockholm 1913), Rodén shows a photograph (p. 179) of a load-carrying ox (possibly also on p. 88).

<sup>2</sup> *W. Munzinger*, *Ostafrikanische Studien*, p. 518. Schaffhausen 1864.

<sup>3</sup> *M. Th. v. Heuglin*, *Reise nach Abessinien*, p. 228. Jena 1868.

employées pour le transport des marchandises diffèrent selon la nature des pays, qu'on doit traverser et la fortune du négociant. Ceux qui possèdent de grandes richesses chargent leurs bagages sur des mulets que leur force et leur sobriété rendent surtout précieux dans les contrées montagneuses; dans quelques provinces, on se sert de taureaux qui, dans les passages difficiles et escarpés, font preuve d'une adresse extraordinaire. Dans les pays sablonneux, de Massaouah au Taranta, de Ras-el-Fil au Sennar et d'Alio-Amba à Zeyla, on préfère les chameaux. En général, les Abyssiniens ménagent beaucoup leurs chevaux; ils ne s'en servent jamais pour les transports et ne les montent guère que dans les plaines; les Galla, au contraire, leur imposent de rudes corvées."<sup>1</sup>

In Kaffa only donkeys, and occasionally mules, are used to carry packs, while horses and mules serve as riding animals.<sup>2</sup>

Again, let us glance at the Galla. In his works on the peoples of North-eastern Africa Paulitschke himself makes no mention of their making use of cattle for transport or riding purposes, but he refers to Brenner, according to whom the southern Galla are stated to keep riding oxen.<sup>3</sup> I have looked up Brenner's article on the southern, nomadizing Galla, and he says that these people frequently graze their cattle in different groups several days' journeys away from their camp, but that there they only keep a small herd which also comprises riding oxen. Of the latter he writes: "Die Reit-ochsen haben einen schweren eisernen Ring in der Nase und sind hauptsächlich zum Transport der kleinen Kinder auf den Märschen bestimmt. Ein Gestell von krumm gewachsenen Hölzern, die über den Rücken des Thieres passen und nach beiden Seiten vorstehen, wird mit einer Ochsenhaut überzogen und darüber zwei andere Häute dachförmig, nach vorn und hinten offen, befestigt. Hier werden die kleinen Kinder placiert und festgebunden, ein grösserer Knabe hat gewöhnlich auf dem Marsche den Schwanz des Ochsen erfasst und

<sup>1</sup> E. Combes et M. Tamisier, *Voyage en Abyssinie*, IV, p. 118. Paris 1838.

<sup>2</sup> F. J. Bieber, *Kaffa*. Bd. I, p. 338. Münster i. W. 1920.

<sup>3</sup> P. Paulitschke, *Ethnographie Nordost-Afrikas*, p. 226. Berlin 1893.





ermuntert ihn von Zeit zu Zeit mit seinem kleinen Speer, der Vater endlich führt das Thier an einem Strick im Nasenring und die Mutter schreitet nebenher und wirft ab und zu einen besorgten Blick in die wandernde Kinderstube."<sup>1</sup> Pack oxen, on the other hand, do not appear to be used by these southern Galla, but neither can these people strictly be said to have need of them, seeing that every tribe possesses camels as well as a few horses, which are used for carrying loads (especially water) on their migrations. On the other hand, these animals are never used for riding on. Possibly there the same belief prevails as among the Somali who do not either ride their camels, holding that if this be done the latter would not give any milk, or indeed might even waste away and die.

As to the use of cattle as riding animals among the eastern Galla I have only discovered a solitary piece of evidence, viz. in Bruce, who of the chief Guangol, of the Argot district, relates how he, when appearing in state and in his official capacity, was mounted on a cow with horns that were disproportionally large. He was attired in all his finery, but used no saddle.<sup>2</sup> We have here a further example, in addition to that above cited from the Mandingo, of cattle being used as riding animals exclusively by chiefs.

About the Lega, the most westerly of the Galla tribes, living on the upper reaches of the Bahr-el-Azrak, Schuver says that they possess large herds of cattle and that each chief owns one or more horses; mules there are none. Loads are exclusively carried on the backs of human porters.<sup>3</sup>

As regards the Somali Paulitschke does not mention anything about cattle being used as load-carrying animals, and Haggenschmied expressly states of those in British

<sup>1</sup> *R. Brenner*, *Forschungen in Ost-Afrika*. Petermanns Mittheil. 14, p. 465. Gotha 1868.

<sup>2</sup> *J. Bruce*, *Reisen zur Entdeckung der Quellen des Nils*, IV, p. 101. Leipzig 1791. Cf. *C. F. Rey*, *The Arussi and other Galla of Abyssinia*. *Journal Afr. Soc.* vol. XXIII, p. 87. London 1924.

<sup>3</sup> *J. M. Schuver*, *Reisen im Oberen Nilgebiet*. Petermanns Mittheil. Erg. heft 72, p. 39. Gotha 1883.

Somaliland that they do not use their oxen for that purpose.<sup>1</sup> Nevertheless I have found one single such instance from the Somali, viz. from those of Jubaland, of whom Dracopoli relates that bullocks, when there are not enough camels, often are used to carry the grass mats for erecting the huts from place to place (fig. 6).<sup>2</sup> Thus pack oxen, contrary to what Koll maintains, do not appear to be altogether unknown to the Somali.

Of East African peoples using cattle as pack animals, those farthest south would seem to be the Masai. In this respect the donkey, as we know, holds the place of honour — for transporting from one grazing ground to another the framework of the hut, indispensable on those treeless steppes, as well as the household gear. But the use of pack oxen has however been recorded both from the northern Masai (Laikipia) and the plains of the former German East Africa. From the firstmentioned von Höhnelt depicts a number of Masai on the march with two loaded oxen (drawing, fig. 7). He emphasizes that not all Masai possess pack oxen, and it took some time before he himself actually saw any among them.<sup>3</sup> As regards the southern Masai, Merker and Weiss state that it is only rarely that they use oxen (or cows) for this purpose.<sup>4</sup> Hollis makes no mention as to this. From the fact that the Masai at all use cattle as pack animals it may no doubt be concluded that their use in this fashion is of earlier date than their use of the pack donkey, and that the former practice has been supplanted by the latter. At the present time the donkey occurs, apart from the Masai, only within a few scattered and very limited areas in northern Tanganyika Territory, and from this circumstance Stuhlmann

<sup>1</sup> *G. A. Hagenmacher*, Reise im Somali-Lande 1874. Petermanns Mitteil. Erg. heft 47, p. 34. Gotha 1876.

<sup>2</sup> *I. N. Dracopoli*, Through Jubaland to Lorian Swamp, p. 147, photo p. 160. London 1914.

<sup>3</sup> *L. v. Höhnelt*, Zum Rudolph-See und Stephanie-See, p. 432. Wien 1892.

<sup>4</sup> *M. Merker*, Die Masai, pp. 164, 177. Berlin 1910. *M. Weiss*, Die Völkerstämme im Norden Deutsch-Ostafrikas, p. 374. Berlin 1910.

concludes that it was only lately there introduced, "possibly shortly before the arrival of the Masai".<sup>1</sup>

Of the agricultural negro peoples that are settled around the Masai plains, several, as we know, have borrowed a number of cultural elements from the Masai, but none of them appear to have adopted the use of cattle as pack animals. The explanation of this may perhaps be wholly to seek in the circumstance of these settled people never having felt the want of pack animals. In this connection I wish, however, to cite just one little detail concerning ox-riding that occurs in one of the folk-tales that I recorded among the Akamba in British East Africa (1911—1912). It deals with a girl's love affair with a baboon, and how in the end they arrived at the village of the girl's father riding on an ox, the girl seated behind her husband, the baboon.<sup>2</sup> Whether in ancient times the Akamba used oxen as riding animals we do not know, in any case it is not very probable. Quite possibly this tale is in no way founded upon reality, but only represents the story-teller's intention to put into it something of unusual nature, seeing that the girl's "husband" was not of the ordinary sort. From this region I have, however, recorded yet another and more actual detail, that should not here be passed over. In the account of his aeroplane flight from Egypt to the Cape of Good Hope, the Swiss airman Mittelholzer reproduces two photos from Kisumu, the terminal station of the Uganda railway line, showing some Luo men (Nilotic Kavirondo) on their way to a great dance arranged by "King" Amimo, riding on oxen.<sup>3</sup> They are wearing large head ornaments made of ostrich feathers. So far as I know, in the literature — not very extensive, one must admit — dealing with the Ja-Luo there is no mention of riding oxen, neither did I during my visit — comprising only one week, it is true — in the neighbourhood of Kisumu observe anything of the kind. But neither

<sup>1</sup> *F. Stuhlmann*, Beiträge zur Kulturgeschichte von Ostafrika, p. 733, with map of distribution. Berlin 1909.

<sup>2</sup> *G. Lindblom*, Kamba Folklore. I, Tales of animals, p. 63. Archives d'études Orientales, publ. par J. A. Lundell vol. 20:1. Upsala 1928.

<sup>3</sup> *G. H. Mittelholzer*, Afrikaflug, figs. 112—113. Leipzig 1927.

had I at the time any occasion to make any direct enquiry about it. Mittelholzer's photographs are all the more remarkable as the particular Nilotic peoples to whom the Ja-Luo belong are not in the habit of using riding oxen. Possibly we have here nothing but a case of imitation — arisen during latter years — of the white men's practice of riding on horses or mules? Probably the Provincial Commissioner or some other Government Official may be able to answer that question. It may however be added that bulls play a certain part at funerals among the Ja-Luo. "There is a great dance, at which all the deceased's relations and friends turn up; if the dead man is a chief the whole clan is represented. Every man is dressed in full war paint and brings his best bull with him."<sup>1</sup>

The above had already been printed when in Kroll I came across a reference to Roscoe, which unfortunately I had till then overlooked. R. expressly says of the Nilotic Kavirondo that "oxen are frequently used for riding. The young men train the animals to this and ride them constantly. They turn them as they wish by prodding the side of the animal's cheek with a stick from which it turns away. The animals are trained, however, to obey the voice rather than wait for the stick. They trot along at a fast rate and cover the ground quicker than a man can walk."<sup>2</sup> And again Mr. L. S. B. Leakey, M. A., while on a visit to Stockholm, told me that when a young man of the Nilotic Kavirondo calls on his prospective father-in-law for the purpose of discussing the bride-price, etc., he arrives at the latter's village riding on an ox. Dr. Leakey further informed me that Kikuyu boys, too, occasionally ride on oxen, although not after having been circumcised. Then it is considered "bad" for them. Thus on closer consideration the practice in question appears to be not quite so unknown in East Africa as one might have supposed. It may indeed be that the riding on an ox which is referred to in the above-cited Kamba tale is actually founded on fact.

<sup>1</sup> G. A. S. Northcote, *The Nilotic Kavirondo*. Journ. Anthr. Inst. 1907, p. 62.

<sup>2</sup> J. Roscoe, *The northern Bantu*, p. 291. Cambridge 1915.

### III. THE SOUTHERN AREA.

#### 1. *Angola, etc.*

In accounts of travelling in Angola it is not difficult to find instances of resident Portuguese making use of riding oxen, and of members of foreign scientific expeditions following their lead. When Livingstone was travelling through Angola, he did a considerable part of the journey on the back of an ox.<sup>1</sup> Monteiro relates how at Mossamedes "oxen are trained for riding".<sup>2</sup> Serpa Pinto rode "a powerful ox", and kept another in reserve, on his way from Benguella to Bihé.<sup>3</sup> Pogge used riding oxen throughout his journey through Angola (to Muata Yamvo).<sup>4</sup> According to what I am informed by P. Staudinger, Max Buschner, too, travelled to Muata Yamvo by means of a riding ox (1879—82). Mounted in this way, Capello and Ivens set out on their journey from Kakonda (in the highland S. O. of Benguella).<sup>5</sup> Wissmann and his companions, in 1883, easily obtained riding oxen at Malange. These were ridden daily, and all of them stood the journey well all the way to Mukenge,<sup>6</sup> the residence of Kalamba-Mukenge, the paramount-chief of the Bashilange. On his earlier expedition (1880), and with Pogge as his companion, Wissmann started from Loanda in a tipoya, but was met on the way by riding bulls sent out from Malange.<sup>7</sup> During his journey in 1886 Wissmann found at Luluaburg the riding bull that two years earlier had carried him thither from Angola, and this he now rode as far as Lake Tanganyika, where he had to change over to a boat. At Nyangwe he gave one of

<sup>1</sup> *D. Livingstone*, *Missionary Travels in South Africa*, p. 488. London 1857.

<sup>2</sup> *J. Monteiro*, *Angola and the river Congo*, II, p. 218. London 1875.

<sup>3</sup> *Serpa Pinto*, *How I crossed Africa*, I, pp. 88, 137. London 1881.

<sup>4</sup> *P. Pogge*, *Im Reiche des Muata Jamwo*, p. 29. Berlin 1880. Cf. also *A. E. Lux*, *Von Loanda nach Kimbundu*, p. 41, Wien 1880 (p. 64 drawing), and *H. Soyaux*, *Aus West-Afrika 1873—76*, II, p. 28. Leipzig 1879.

<sup>5</sup> *H. Capello & R. Ivens*, I, p. 77 sq. London 1882.

<sup>6</sup> *H. Wissmann etc.*, *Im Innern Afrikas*, pp. 24, 293. Leipzig 1888.

<sup>7</sup> *H. Wissman*, *Unter deutscher Flagge quer durch Africa von West nach Ost*, pp. 9, 13, 32, 42. Berlin 1890.

his riding bulls to a sick Arab for travelling eastwards to the coast. Also in 1882 Wissmann was able to make use of his riding bulls as far as L. Tanganyika, but there he lost the last of them through a kind of large, black gadfly.<sup>1</sup> On the Lunda expedition Grenfell, from the time of meeting the Portuguese, rode an ox.<sup>2</sup> To cite a further instance, Schachtzabel used a riding ox as a means of transport in the highland of Benguella.<sup>3</sup>

In the southern regions of the Congo attempts at keeping riding bulls at the Belgian stations seem to have been made. Wissmann (1890, p. 53) mentions them from the station of Luebo (at the junction of the Luebo and Lulua rivers, affluents to the Kasai R.). These animals were no doubt obtained from Angola. Also in other parts of the Congo attempts have been made at keeping riding bullocks, and of this an instance has already been given above (p. 33). I will here add yet another: Peter Möller, in 1885, brought with him a riding ox from Mossamedes to Matadi, with which, he writes, he intended to experiment in lower Congo. He rode it from Matadi to Banza Manteka, but it could not stand the climate but died after four months.<sup>4</sup>

Of the travellers here mentioned, all (with the exception of Capello and Ivens) appear to have been satisfied with this form of transport. Riding oxen are, at any rate to some extent, inured to the climate; they are more easily fed on the march than horses, and over certain kinds of country — especially swampy, but also on stony and sandy ground — they are surer of foot than the latter, partly perhaps because of their more phlegmatic temperament. The animals are

<sup>1</sup> *H. v. Wissman, Meine zweite Durchquerung Äquatorial-Afrikas vom Congo zum Zambesi während der Jahre 1886 u. 1887*, pp. 48, 49, 53, 163, 183, 187, 199. Frankfurt a. O. 1891.

<sup>2</sup> *H. Johnston, George Grenfell and the Congo*, I, pp. 208, 216, 219, Photos pp. 187, 217. London 1908. Cf. *W. H. Bentley, Pioneering on the Congo*, II, p. 224. Oxford 1900.

<sup>3</sup> *A. Schachtzabel, Im Hochland von Angola*, p. 59. Dresden 1923. *A. Schachtzabel, Angola*, p. 71. Berlin 1926.

<sup>4</sup> *Möller, Pagels & Gleerup, Tre år i Kongo*, pp. 233, 327. Stockholm 1887.

trained while young, and are taught all the various paces: walk, trot, canter, etc., the lastmentioned, however, only over short distances. It appears that as a rule the ordinary English saddle is used. The bridling arrangement consists of placing through a hole pierced in the nasal cartilage a short piece of iron, the thickness of a finger, to either end of which is attached a ring, from which runs a single rein. For particulars as to what riding oxen are able to do in the way of travelling performance, etc., see Lux, Pogge and Wissmann.

From what has been adduced in the foregoing, we have sufficient evidence as to Europeans in Angola — extending into southern Congo and Rhodesia (instances from the latter will follow) — making use of riding oxen. What interests us more, however, is the extent to which the *natives* within this region do so. The data I have been able to hunt up on this subject are, unfortunately, very scanty. Andrew Battell has nothing to say about riding oxen, and Ravenstein (in the Appendix to his edition of A. Battell's *Adventures in Angola*) makes this admission: "I do not know whether oxen were employed as beasts of burden (*bois cavallos*) in these early days" (the beginning of the 17th century).<sup>1</sup> In writing this, however, he presumably only has in view the Portuguese. Sir Harry Johnston says, it is true, that "the natives between Angola and Tanganyika, and over Portuguese South-West Africa, have trained oxen for centuries, as riding animals",<sup>2</sup> but unfortunately he gives no actual instances. Equally generalizing is a notice in *Globus* (author's name not given) to the effect that "die Bewohner des südlichen Kongo-staatsgebietes gebrauchen den Ochsen als Reittier".<sup>3</sup> Of the travellers and authors mentioned above, Wissmann is the only one in whom I have direct references, albeit made more in passing.<sup>4</sup> He relates how in the neighbourhood of Luluaburg

<sup>1</sup> E. G. Ravenstein, *History of Kongo and Angola*. Hakluyt Soc., p. 16, note. London 1901.

<sup>2</sup> H. Johnston, *op. cit.*, I, p. 216.

<sup>3</sup> *Globus*, Bd. LXXV, p. 36. Braunschweig 1899.

<sup>4</sup> Even the two joint authors Jaspert, in their purely ethnographical work, are silent on this point. *F. u. W. Jaspert*, *Die Völkerstämme Mittel-Angolas*, Frankfurt a. M. 1930.

he sentenced the chief Kasange for some offence to pay a fine of one handsome and powerful riding bull, which he had bought from a caravan of Kioko (Bajokwe) traders. Among the Bashilange Wissmann noted a certain strict etiquette and observance of rank. When Kalamba, the Bashilange chief, was travelling with his retinue, none other than himself was allowed to use a tipoya: the rest of the chiefs walked behind him or rode on bulls.<sup>1</sup> From Kalamba Wissmann received a number of riding bulls as a present. In another passage W. relates how the Basonge chief Lupungu, who was bargaining about the purchase of one of W.'s riding bulls, one evening tried to steal off with it before the deal had been concluded. Another chief, by name of Kitenge, of the Nyangwe district, at his own request obtained from W. a riding bull for a return present and as payment for services rendered.<sup>2</sup>

According to Statham there are three different breeds of cattle in Angola, one of which, the "Yenges" cattle, originally came from Barotseland and are used as riding oxen.<sup>3</sup> He makes no mention, however, as to whether they are used in that capacity also by the natives.

My single piece of positive information from Angola consists of a verbal statement made to me by Dr. Amandus Johnson, Philadelphia, regarding observations during his expedition to that country in 1922—24. According to him, riding oxen occur among the Bailundo, and further he mentions the folk-tales that he recorded among the Bondo people of northern Angola (north of Malange). Thus, for example, a Bondo chief took to himself a wife, and in due course she arrived at her husband's village riding on an ox. "This was narrated to me", Dr. Johnson said, "not as anything remarkable, but as an everyday matter". According to J., the Bailundo are still in possession of large herds, while the Bondo have lost most of their cattle.<sup>4</sup>

<sup>1</sup> *Wissmann*, etc., *Im inneren Afrikas*, p. 168.

<sup>2</sup> *Wissmann*, op. cit. 1890, pp. 67, 150, 172.

<sup>3</sup> *J. C. B. Statham*, *Through Angola, a coming colony*, p. 329. London 1922.

<sup>4</sup> In his account, published in Swedish, of his journey in Angola, entitled "I marimbans land" (In the country of the marimba), Stockholm 1929, Johnson makes no mention of riding oxen.



On the whole, the fact of the matter is presumably in regard to northern and central Angola, as well as southern Congo, that it is only here and there the natives possess cattle. And where riding oxen occur, they appear, if conclusions may be drawn from the few data given above, exclusively to belong to more important chiefs. Among the Kimbundu Jaspert (p. 15) found men of alien tribes, such as Ovambo, Hottentots and Zulu, acting as herdsmen for their cattle, and it may be inferred that cattlebreeding is not native to these parts but a loan from pastoral peoples of adjoining southern regions. Marquardsen emphasizes that the "early Bantu" of Angola (Bakongo, Balunda, Ganguela, Manbunda, and others) were not pastoral but agricultural, and that cattle were introduced by the "later Bantu" (Ambundu, Vimbundu, Herero-Ovambo). To this day, M. says, the distribution of cattle in Angola evidences "eine auffällige Abhängigkeit von der Zugstrassen der Völkerwanderung". East of a line drawn from the Kuan-gu R. to the watershed between the Kubango and Kuito rivers the natives, with rare exceptions, keep no cattle.<sup>1</sup> As regards the origin of the use of riding oxen in Angola, Johnston is, on the whole, probably correct when he says (*op. cit.* p. 216) that it "was apparently introduced by the Portuguese four centuries ago". For the present, at any rate, I am content to agree with that opinion.

Also in Northern Rhodesia the whites use riding oxen, at all events in the parts neighbouring upon Angola. This country the Portuguese, as we know, formerly looked upon as being within their dominion as part of Angola, and there no doubt Portuguese traders are still to be found. I shall here give a few instances. Arnot relates how he on setting out from Lialui, the residence of chief Lewanika, started mounted on a small ox belonging to a Portuguese trader.<sup>2</sup> A. Gibbons mentions several Europeans that used riding oxen when travelling in the Valovale country (the Valovale are subjects of the Barotse, and living to the north of the latter, on the western bank

<sup>1</sup> *Marquardsen-Stahl*, Angola, pp. 108, 132. Berlin 1928.

<sup>2</sup> *F. S. Arnot*, Garenganze, p. 97. London 1889.

of the Zambezi river).<sup>1</sup> H. Schomburgk, in 1904, met in the neighbourhood of Kasempa a small party of Portuguese slave traders who journeyed on riding oxen, which were confiscated.<sup>2</sup> Cf. fig. 8.

## 2. *South-West Africa.*

In regard to the use of oxen for riding it is difficult to draw up a distinct line of demarcation between Angola and South-West Africa, at any rate concerning European travellers and Hottentots, but for clearness' sake, and with a view of apportioning my treatise in suitable sections, I am adhering to the political division.

In South-West Africa the Europeans, as we know, universally ride horses, and the practice largely prevails among the natives, especially chiefs and Hottentots. P. Möller says of the Ovambo chiefs that they were always in possession of a bunch of horses, mostly bought from white traders.<sup>3</sup> It is also known, however, that riding oxen, too, are used in South-West Africa. C. J. Andersson often rode them on his travels, and on the back of one he covered more than 2,000 miles. On one occasion he followed on the spoor of an elephant, mounted on an ox.<sup>4</sup> Members of the German territorial troops appear at times to have been mounted on oxen. Thus von François depicts a German non-commissioned officer in full marching order bestriding a riding ox (fig. 9). The troops also employed oxen for carrying store on pack-saddles.<sup>5</sup> K. Angebauer rode an Ovambo ox on a hunting trip in the Ovambo country,<sup>6</sup> and a brother of von François frequently employed

<sup>1</sup> *A. Gibbons*, *Africa, from South to North through Marotseland*, II, pp. 26, 202. London 1904.

<sup>2</sup> *H. Schomburgk*, *Wild und Wilde im Herzen Afrikas*, p. 56, photograph. Berlin 1910.

<sup>3</sup> *P. Möller*, *Resa i Afrika genom Angola, Ovampo och Damaraland*, p. 172. Stockholm 1899.

<sup>4</sup> *C. J. Andersson*, *The Okavango River*, p. 171. London 1861.

<sup>5</sup> *H. von François*, *Nama und Damara*, pp. 262, 289 (photographs). Magdeburg 1885.

<sup>6</sup> *K. Angebauer*, *Ovambo*, p. 177. Berlin 1927.

riding oxen on journeys to the Okavango River and Lake Ngami. I could easily cite further instances of Europeans using riding oxen in these parts, but those here given may suffice.

If we turn to the natives, according to von François (p. 262), all the tribes of South-West Africa train young bullocks for riding. Nevertheless I have neither in Andersson, Möller, Gentz, Tönjes, or other authors found any mention of the Ovambo using oxen for riding or transport.<sup>1</sup> (This does not however exclude the possibility of an Ovambo chief here and there keeping riding oxen). If therefore the Ovambo, on the whole, are not making such use of their oxen, this may presumably in the first place be due to their being settled agriculturists, contrary to the nomadizing Herero and Hottentots.

But as regards the Herero, too, information is scanty. Irle only states, that children rode bareback on calves, which were then bridled in the usual way: a thin piece of wood passed through the nasal cartilage, and a "rein" (leathern thong) served for a rein. "So werden die Herero früh tüchtige Reiter und führen oft Wettrennen aus".<sup>2</sup> According to Büttner, the art of riding was unknown in Damaraland (Herero) before the arrival of Europeans, though oxen were employed as pack animals, and, he further somewhat darkly states: "Väter, welche in den Festhalten des Althergebrachten die beste Garantie für bei der Familie bleibenden Segen sehen, lassen sich auch wohl noch auf dem Sterbebette von ihren Söhnen beloben, dass sie nicht reiten wollen."<sup>3</sup> Andersson indirectly supplies information in that he says the Damara (Herero) "rarely or never make use of a handsome animal as beast of burden, but employ quiet, ugly bulls for such purpose."<sup>4</sup> In another work of his, Andersson relates how Damaras in a fight with Hottentots captured a considerable number of

<sup>1</sup> Literature on the Ovambo, see *G. Nitsche*, Ovamboland. Kiel 1913 (Diss.).

<sup>2</sup> *J. Irle*, Die Herero, p. 122. Gütersloh 1906.

<sup>3</sup> *C. G. Büttner*, Die Viehwirtschaft der Herero, p. 490. Das Ausland 1883.

<sup>4</sup> *C. J. Andersson*, Lake Ngami, p. 319. London 1856.

riding oxen from the latter.<sup>1</sup> Gentz publishes a photograph of Bastards and Hereros mounted on oxen.<sup>2</sup>

As regards the Hottentots of South-West Africa there is no doubt about their having largely used oxen for the transportation of their huts and household gear, and also for women, children, or sick or feeble people to ride on from place to place.<sup>3</sup> As they also possess horses, they were on their raiding expeditions exceedingly mobile, and able to cover great distances. P. Möller mentions that Hottentots of Namaqualand extended their raiding expeditions via Damara- and Ovambo-land as far north as Mossamedes, a place that they on one or two occasions actually besieged. "In parties up to 100 strong those dreaded visitors range over the country; they are good shots to a man, and, as in addition they are mounted on horses or riding oxen, they travel fast and appear unexpectedly, here to-day and somewhere else to-morrow, everywhere carrying off the cattle of the natives and killing people."<sup>4</sup> Opinions as to the speed of the Hottentot riding oxen seem however to vary, if we may judge from a Nama riddle, recorded by Schultze, which asks: "What makes a short way long?" And the answer: "The trek ox, or the riding ox, because it is slow".<sup>5</sup>

References to riding or pack oxen among the Hottentots of South-West Africa frequently occur in the literature, and I shall here cite a few of them. Le Vaillant divides the Nama oxen in three categories: "Boeufs de charge ou de trait, boeufs de monture et boeufs de guerre". About the firstmentioned two kinds he does not trouble to say much, "parce qu'elles sont connues chez les autres peuplades sauvages, et même dans les colonies, comme je l'ai déjà dit, et ils se dressent

<sup>1</sup> C. J. Andersson, Notes of travels in South Africa, p. 145. London 1875.

<sup>2</sup> Gentz, Die Geschichte d. südafr. Bastardvolkes. Globus, 84 (1903), p. 227.

<sup>3</sup> L. Schultz, Südwestafrika. In H. Meyer, Das deutsche Kolonialreich, II, p. 208. Leipzig 1910.

<sup>4</sup> P. Möller, Resa i Afrika, p. 46.

<sup>5</sup> L. Schultze, Aus Namaland und Kalahari, pp. 262, 311, 544. Jena 1907.

de même.<sup>1</sup> Occasionally Le Vaillant himself on his journeys used oxen which he hired from Hottentots and employed for carrying his own and his followers' equipment. Of those animals he used to set apart two for emergency requirements, such as carrying sick or wounded, or women that might get tired (II, p. 75). When the Nama, Andersson tells us, remove their habitations, the mattings and the framework of the hut, which consists of semicircular bows, are packed on oxen. "Their household utensils, such as calabashes, milkpails, pots, etc., are suspended to the bows, and in the midst of all this confusion is often seated the good dame of the house, surrounded by her promising offsprings".<sup>2</sup> Alexander describes how the Nama train a young ox for riding, or for a pack: "it is thrown on the ground, and a short stick with a fork at one end is thrust through the cartilage of its nose; to the ends of the stick a thong is attached, which forms the bridle; sheep skins are placed on the back and secured with reims or thongs; the ox is then mounted by a good rider . . ."<sup>3</sup> It is also related by von François how young oxen are trained for riding, and, according to him, the method is the same all over South-West Africa.<sup>4</sup>

Of the Korannas Theal says that they (in 1775), "being armed only with bows and arrows and mounted on pack oxen", were unable to oppose the robber captain Jan Bloem, a half-breed, and his band who had become possessed of a few guns and some horses.<sup>5</sup> In Chapman's book there is a drawing showing Korannas, men, women and children,

<sup>1</sup> *F. Levaillant*, *Second voyage dans l'intérieur de l'Afrique*, I, p. 231. Paris en 3 (1795).

<sup>2</sup> *Andersson*, *Lake Ngami*, p. 326.

<sup>3</sup> See further *J. E. Alexander*, *An expedition of discovery into the interior of Africa*, I, p. 162; II, p. 54. London 1838. J. Chapman publishes a drawing representing Nama women mounted on riding oxen, at Barmen, inland from Walfish Bay (*Travels in the interior of South Africa*. I, p. 426. London 1868). Cf. also *Th. Hahn*, *Die Nama-Hottentotten*. Globus XII, p. 306. Braunschweig 1867.

<sup>4</sup> *v. François*, pp. 262, 289.

<sup>5</sup> *G. McCall Theal*, *History and Ethnography of Africa south of the Zambezi*, III, p. 388. London 1922.

mounted on oxen.<sup>1</sup> The Bastards employ their oxen as draught, pack and riding animals.<sup>2</sup>

### 3. *South Africa and the Kalahari.*

As early as the account of Vasco da Gama's first voyage riding oxen are mentioned from the Hottentots on the bay of St. Braz (Mossel Bay): "The oxen of this country are as large as those of Alemtejo, wonderfully fat and very tame. They are geldings, and hornless. Upon the fattest among them the negroes place a packsaddle made of reeds, as is done in Castille, and upon this saddle they place a kind of litter made of sticks, upon which they ride. If they wish to sell an ox they pass a stick through his nostrils, and thus lead him."<sup>3</sup>

The second earliest reference to the subject for the present treatise that I have found dates from 1622 and is cited by Theal: the crew of a Portuguese ship were forced to land on the south-eastern coast, probably somewhere between the Fish and Kei rivers. From Hottentots, whom they came across, they obtained seventeen pack oxen, upon the backs of which they loaded their provisions.<sup>4</sup>

Here and there in passing, Theal gives brief information about the use of oxen by Hottentots in the 17th century. Even the expeditions that the Dutch sent out from the fort of Good Hope sometimes included pack oxen to carry provisions and articles of merchandise (II, pp. 74, 110), and, seeing that their guides frequently were Hottentots, they also most likely provided the oxen. In one place (II, p. 307) Theal expressly states that pack oxen were obtained from the Hottentots. In 1681 some of the leading men of the Namaqua came to visit the Cape. "The men were accompanied by their wives, all riding on pack oxen. They brought their huts with them, these

<sup>1</sup> *Chapman*, I, p. 128.

<sup>2</sup> *G. A. Farini*, *Through the Kalahari Desert*, p. 122. London 1886, and *Le Tour du Monde* 1886, p. 327.

<sup>3</sup> *E. G. Ravenstein*, *A journal of the first voyages of Vasco da Gama, 1497-1499*, p. 12. Hakluyt Soc. London 1898.

<sup>4</sup> *Theal*, III, p. 134.

consisting merely of a framework of long twigs fastened together in the form of a beehive and covered with rush mats. These huts could be taken from the backs of the oxen and be put up almost as quickly as tents could be pitched. They were habitations such as none but nomads would use. To furnish food, the travellers brought with them a herd of cows, for they depended almost entirely upon milk for subsistence".<sup>1</sup>

Kolb describes the method used by the old-time Cape Hottentots in training their pack oxen which they employed for carrying their huts and household gear when moving to another camping ground: "Auch setzen sie die alten Leute, Kranke und Schwache darauf. Zu diesem Ende machen sie ein Lager in Form eines Trag-Stuhls, durch Hülfe daran gebundener Stecken, auf diesen sanftmüthigen Thieren, worinn sie die unvermöglichen Personen fortbringen. Wenn sie auf das Vorgebürge kommen, Wein, Brandtwein, Taback, eiserne Geräthe oder dergleichen Dinge zu kauffen, so führen sie allezeit einige dergleichen Ochsen mit sich, um die bekaufften Waaren wegzuschleppen. Ein Hottentott, so dergleichen Ochsen besitzt, träget niemahlen etwas."<sup>2</sup> This statement of Kolb about the care of aged people may be supplemented with another made by Fritsch about the way the Hottentots of the Cape Colony treated such worn-out old people as no longer were able to fend for themselves or be of any use to the common weal: Their expulsion from the tribe was decided upon, and thereupon they were placed on the back of a pack ox and taken out into the wilderness where they were left with a small supply of food in a hut erected for the purpose. And after that, nobody troubled any more about them.<sup>3</sup>

Sparrman "had no small pleasure in seeing for the first time some Hottentots riding their oxen", and he relates how "these saddle-oxen must be tamed and broken in while they are calves. For this purpose a hole is bored through the gristle

<sup>1</sup> *Theal*, II, p. 254. *Theal's History of South Africa, I. Ethnography and condition of S. A. before A. D. 1505* (2nd ed. 1919), is beyond my reach.

<sup>2</sup> *P. Kolb, Beschreibung des Vorgebürges der Guten Hoffnung*, p. 165. Tab. XV. Frankfurt 1745.

<sup>3</sup> *G. Fritsch, Die Eingeborenen Süd-Afrikas*, pp. 319, 334. Breslau 1872.

of the nose, large enough to hold a wooden pin, to both ends of which the rope is fastened, that serves by way of bit and bridle to guide the animal with. The saddle consists of a sheep-skin folded up together, and fastened by a rope round the fore part of the ox's body. These oxen are by the colonists called *pack-oxen*, they being also used for carrying packs and burthens: the name is likewise very suitable to them on another account, which is, that the Hottentots very frequently ride, several of them together, upon one ox. There is an order of government, which ordains that no Hottentot shall be in possession of a horse."<sup>1</sup>

Le Vaillant describes a party of Gonaqua Hottentots on the march with their cattle: "et toutes les femmes de la horde avec leurs enfans, montées sur leurs boeufs: une partie de leurs hommes marchoit derrière". "Souvent aussi", Le Vaillant says, "le boeuf sert de monture au Hottentot, qui ne connoît point le cheval, et, dans les colonies même, les habitans s'en servent quelquefois".<sup>2</sup>

From the Griqua (roughly about the confluence of the Orange and Vaal rivers) Gordon Cumming gives a very good illustration of how on occasions the Hottentots would pile cargo on their pack oxen: "On occasions of their migrations I have seen a pack-ox carrying not only its master's house on its back, but also a complete set of dairy utensils, all manufactured of wood, a couple of skin bags containing thick milk, various cooking utensils, and, surmounting all, the guidwife, with one or two of her children".<sup>3</sup>

The "Kaffirs", too, employ oxen as pack or riding animals, on the whole in the same way as the Hottentots. "Allgemeiner bedient man sich einzelner Stiere, um das Hausgeräth und andere Nothwendigkeiten bey Wanderungen fortzuschaffen. Einem solchen zum Tragen bestimmten Stier wird ein unge-

<sup>1</sup> *A. Sparrman*, A voyage to the Cape of Good Hope, p. 237, frontispiece. London 1785.

<sup>2</sup> *Le Vaillant*, Voyage dans l'intérieur de l'Afrique, pp. 170, 274. Paris 1790. The author also gives (p. 273) a description of how pack oxen are trained.

<sup>3</sup> *R. Gordon Cumming*, A hunter's life in South Africa, I, p. 141. London 1851.



fähr sechs Zoll langes und einen Zoll dickes gerundetes Holz quer durch den Nasenknorpel gesteckt und zu beyden Seiten mit einem Pflock durchkreutzt; dieses Zwangholz bleibt beständig in der Nase des Thieres, um zugleich zu verhindern, dass die Oeffnung nicht wieder zuwächst und bey dem Gebrauch wird ein Zügel an demselben befestigt. Solche Stiere werden auch oftmals geritten und tragen ihre Reuter, sogar in Gallop mit möglichster Sicherheit."<sup>1</sup> No saddle is used, at the most a sheepskin does duty instead. Often the horns are sawed off on the riding oxen in order that the rider may not hurt himself on their points; or else these may, with the same object in view, have been bent downwards.<sup>2</sup> Campbell makes no mention of riding oxen from the Kaffirs, and moreover states — somewhat one-sidedly, one may suppose — that the Kaffir (in Kaffraria) never uses his cattle as beasts of burden, "except when he is removing from one place to another along with his kraal, and then they carry the milk bags, or skin bags which contain milk".<sup>3</sup>

Having cited the above references to Kaffirs in general, I shall proceed to give a few instances taken from different Kaffir tribes, using that appellation in its widest sense.

About the Xosa, Kropf writes that their oxen, with their large horns, are very suitable for carrying loads, "indem der Kaffer bei seinen Wanderungen einen Teil seiner wenigen Habseligkeiten auf den Kopf zwischen die Hörner bindet, wobei auch der den Kafferochsen eigene Widerrist mithilft, der jetzt nun auch dazu dient, beim Ziehen vor dem Wagen das Joch zu tragen. Früher wurden die Ochsen nur zum Lasttragen und Reiten benutzt. Schon als Kälber werden sie von den Knaben geritten . . ."<sup>4</sup>

<sup>1</sup> *J. C. L. Alberti*, Die Kaffern auf der Südküste von Afrika, p. 84. Gotha 1815. *J. Barrow*. Travels into the interior of South Africa, I, p. 156. London 1806.

<sup>2</sup> Aus dem Leben und Treiben des Kaffervolkes in Südost-Afrika. Globus XIX, 6, p. 84. Braunschweig 1871. There is also a picture representing a portly chieftain returning from a successful raiding excursion on the back of his riding ox.

<sup>3</sup> *J. Campbell*, Travels in South Africa, p. 522. London 1815.

<sup>4</sup> *A. Kropf*, Das Volk der Xosa-Kaffern, p. 109. Berlin 1889.

The Basuto, too, use their oxen as riding or pack animals,<sup>1</sup> while the Baronga and Batonga do not do so.<sup>2</sup> With them, cattle are not of the same importance as with the Kaffirs proper. The Bechuana, on the other hand, when moving place their meagre household gear on oxen, and also ride these animals.<sup>3</sup> This also applies to those living in southern Kalahari. In wintertime their pack oxen are said to be able to do without water nearly a week.<sup>4</sup> From his journey in southern Kalahari (N. W. from Mafeking) Hodson testifies to the ability possessed by oxen to travel over sandy ground, where for slow work they are more useful than horses. They are also, H. says, used a great deal by the Kalahari natives for packing and riding: "Cows are used for pack purposes in the same way as oxen". According to H., packing an ox is a rather complicated business. It takes three men, one to hold its nostrils and one on each side. H. describes in detail how the packing is done, and occasionally it may prove a difficult business when "an old bullock blows himself out during the operation, and then, when he thinks you have finished, he assumes his normal size, the consequence being that the pack soon becomes loose and falls off." As a rule, Hodson says in conclusion, "Kalahari natives ride oxen barebacked, but Hottentots manufacture a species of saddle out of wildebeeste or gemsbok hide".<sup>5</sup>

Further there is the Batlapin, the Bechuana tribe. Holub met three Batlapin men travelling, one on horseback and two on riding oxen, one of which had long and outspreading horns, while those of the other were short, down-curving,

<sup>1</sup> *K. Endemann*, Mittheil. über die Sotho-Neger. Zeitschr. f. Ethn. 6, 1874, p. 27. *E. Jacottet*, Contes populaires des Bassoutos, p. 110. Paris 1895. *Casalis*, Les Bassoutos (Paris 1859) is beyond my reach.

<sup>2</sup> *H. A. Junod*, Les Ba-ronga, Neuchatel 1898, The Life of a South African tribe, Neuchatel 1912.

<sup>3</sup> *G. Fritsch*, Die Eingeborenen Südafrikas, pp. 186, 209.

<sup>4</sup> *Schultze*, Namaland u. Kalahari, p. 629, with photograph.

<sup>5</sup> *A.W. Hodson*, Trekking the great thirst, p. 37. London 1912.

and sawn off at the points.<sup>1</sup> Also the inhabitants of the Okavango source region, and above others the Batauana (a branch of the Bamangwato, a Bechuana tribe), keep pack and riding oxen. In our days, however, they mostly use their oxen for draught purposes owing to all the more important villages possessing ox-waggon.<sup>2</sup>

As regards two more Bechuana tribes, the Bangwaketse and the Barolong, who are agriculturists, the available information is negative where riding is concerned, in that Stow says that they did not practice "riding of any kind, not even on a pack ox".<sup>3</sup>

From Livingstone we gather that the Makololo (intrinsically of Basuto stock) employed pack oxen, and probably also riding oxen. Thus L. relates how he was presented with eight riding oxen, and seven for slaughter, by Mpololo, an uncle of Sekeletu, the great chief of the Makololo. "Some were intended for our own use, and others as presents to the chiefs of the Balonda" (Balunda). At Sesheke, Sekeletu supplied Livingstone with twelve oxen, "three of which were accustomed to being ridden upon".<sup>4</sup> There remains however the question as to the extent ox-riding was practiced by the Makololo, for in another place in the same book L. relates an episode not exactly indicating any particular expertness on their part: "The comrades of Sekeletu, wishing to imitate him in riding on my old horse, leaped on the backs of halt-broken Batoka oxen as they ran, but, having neither saddle nor bridle, the number of tumbles they met with was a source of much amusement to the rest".

<sup>1</sup> E. Holub, *Sieben Jahre in Süd-Afrika*, I, p. 152. Wien 1881. Holub in *Journ. Anthr. Inst.* X (1881), pl. III. Fritsch, *Drei Jahre in Südafrika*, p. 293. Breslau 1868.

<sup>2</sup> S. Passarge, *Das Okawangosumpfland und seine Bewohner*. *Zeitschr. f. Ethn.*, 37, p. 692. Berlin 1905.

<sup>3</sup> G. W. Stow, *The Native Races of South Africa*, p. 533. London 1905.

<sup>4</sup> D. Livingstone, *Missionary travels in South Africa*, pp. 247, 488 (309, 446). London 1857.

#### 4. *Zendj*.

As I do not know exactly where to locate the above, I am devoting a special section to citing an extract from Masoudi on the *Zendj* country and its inhabitants, which is presumably the earliest evidence in writing that we possess relating to the use of pack oxen in Africa (A. D. 943). I am here quoting from "*Les Prairies d'Or*", the unabridged French edition: "*Les Zendjes emploient le bœuf comme bête de somme, car leur pays ne fournit ni chevaux, ni mulets, ni chameaux et ils ne connaissent même pas ces animaux*"... "*Ils [the Zendjes] emploient dans leur parure le fer au lieu de l'or et de l'argent, de même qu'ils se servent de boeufs, ainsi que nous l'avons dit plus haut, comme bêtes de somme ou pour la guerre, en guise de chameaux et de chevaux. Ces boeufs sont harnachés comme le cheval et courent avec la même vitesse. J'ai vu à Rey des animaux de cette espèce, qui s'agenouillaient comme le chameau et s'avançaient avec l'allure précipitée de ce dernier lorsqu'il trouve sa charge légère.*"<sup>1</sup>

The country of the *Zendjes* comprised many kingdoms, and, according to Masoudi, extended from the southern border of Abyssinia and the upper Nile region down to Sofala and Wak-Wak. Seeing that these natives employing pack oxen are totally unacquainted with horses and camels, they are hardly to be sought in the regions bordering on Abyssinia, but more likely in the extreme south, that is to say Sofala, which Masoudi describes as a country. The circumstance of oxen also being used for warlike purposes likewise points to South Africa. Hottentots I think must be ruled out, among other things because the *Zendjes* were black. It may therefore be supposed that he alludes to Bantu negroes living in the country behind Sofala, i. e. roughly Mashonaland.

<sup>1</sup> *Maçoudi*, *Les prairies d'or*; texte et traduction par Barbier de Meynard et Pavet de Courteille, T. III, pp. 7, 27. Paris 1864. Cf. G. L. Cleve, *Zwei Zeugen versunkener Bantukulturen*, p. 194. Globus 1900.

## 5. *Madagascar.*

Although Madagascar does not properly falls within the scope of our inquiry, I wish, however, for the sake of completeness, to recall the fact that also there riding oxen are found. Grandidier writes: "Dès 1845, quelques Malgaches se sont servis comme monture d'un boeuf écorné avec une corde traversant les naseaux, qu'ils appelaient 'sovaly omby' (litt. cheval-boeuf) et à la fin du XIX siècle on en rencontrait assez souvent, surtout dans le Nord, que les indigènes, ainsi que les colons, employaient comme montures et comme bêtes de somme. (On les chargeait de deux sacs de toile pouvant recevoir de 60 à 80 kilogrammes de marchandises et ils allaient souvent par convois de 6 à 8. C'est lors de la grande chasse dans la plaine de Manerinerina par Ranavalona Ière que les boeufs ont été pour la première fois employés comme bêtes de somme: il y en avait 300 qui portaient des paquets. Sous Radama II ils étaient assez nombreux). Ils étaient faciles à dresser."<sup>1</sup> In another passage Grandidier relates as follows: "En me rendant de Tananarive à Monrondava, j'ai rencontré quelques Merina [a Hova-tribe] voyageant à cheval sur les boeufs: ils leur mettent une petite selle et se font accompagner d'un ou des deux autres afin de pouvoir changer de monture de temps en temps." Dahle says that "the natives are occasionally wont to ride on oxen, but have not yet learnt to employ them for pulling loaded waggon."<sup>2</sup> W. Kaudern has told me that he saw Sakalavas riding on oxen. In the account of his journey he depicts two such animals from Ambato, south-west of Majunga (fig. 11). "Their horns had been sawed off close to the forehead, and on one of these animals the wounds, strange to say, had managed to heal up, while on the other they had formed large pusdischarging abscesses in which flies and other crawling things were voraciously feeding. With a view to improve upon the appearance of the poor beasts, the natives had cut away their dewlaps all the

<sup>1</sup> *A. et G. Grandidier*, *Histoire physique, naturelle et politique de Madagascar*. Vol. IV, T. 4, p. 355. Paris 1928.

<sup>2</sup> *L. Dahle*, *Madagaskar og dets Beboere*, II, p. 42. Christiania 1876—77.

way, so that in one of them there still remained an open sore, an inch in width, running along the neck and ending between its forelegs."<sup>1</sup> According to Grandidier, the horns of riding oxen were cut off in order to make them look like horses. Oxen mutilated in this way are accordingly called *omby-soavaly*, a word which, according to Kroll, is composed of the Bantu word *ngombe* (cattle), and the French word "cheval".<sup>2</sup> Before the Europeans entered the country Kroll further says, riding oxen appear to have been unknown in Madagascar, and that he is correct in this supposition both the appellation just cited and Grandidier's above-quoted statement go to confirm.

#### IV. RESUMÉ.

From ancient times the sources (early authors and pre-historic rock-carvings) are few in number, but nevertheless sufficient to show that in northern Africa cattle — apparently domesticated in remote pre-historic time — at a very early date were used for load-carrying purposes (Barbary and northern Sahara) and to a certain extent as riding animals (the Garamantes). The employment of cattle in this way declined partly through the introduction of the horse and more especially the camel, and partly through deterioration of the climate in that northern Africa, and above all adjoining parts of the Sahara — at one time possessing a comparatively humid and favourable climate — gradually dried up. It is very probable that in ancient times a fairly brisk intercourse was carried on between the Sudan and northern Africa by means of pack oxen. And up to quite recently the Tuareg of Air have carried on an active trade in cattle through the desert, bying from the Damergu and selling to the people of Ghat and the Fezzan (Rodd).

From the northern Africa of the present time we have fully authentic data as to the use of pack oxen to any considerable

<sup>1</sup> *W. Kaudern*, På Madagaskar, p. 296. Stockholm 1913.

<sup>2</sup> Kroll cites as his authority *Foucart*, Le commerce et la colonisation à Madagascar (Paris 1894, p. 239), a work which, however, I have not within my reach.

extent only from certain nomadic tribes of Morocco, who on their migrations use them for transporting their tents and household gear. The northern Tuareg (those of Hoggar and Azdjer) possess only a few oxen which they occasionally use for packing loads (Duveyrier), and now and again for riding on. All their cattle would appear to have been imported from the Sudan. The southern Tuareg (Oulliminden, and others) are well off for cattle, which are used as pack and riding animals, and this may also be said of the inhabitants of Air, Tagama and Damerghu. Trade caravans arriving here from the Sudan frequently carry their merchandise on pack oxen. Leo Africans relates of nomads in "the kingdom of Agadez" that they moved their huts from place to place upon oxen.

Right through from the Senegal mouth region and eastwards as far as Abyssinia — with a few breaks accountable to tsetse fly or where conditions are unsuitable for travelling of this kind — are employed pack oxen, which at the same time are used for riding on. In this region, the Sudan, it is necessary to discriminate between what *peoples* that themselves possess pack oxen and through what *regions* such animals are used. The Arab-influenced Berber nomads of Senegal and southern Mauretania transport their tents and furniture as well as their trade goods (chiefly rubber, probably) on camels and oxen. In the Sudan, traders in salt and other goods employ pack oxen, upon which they also ride. As to where the southern boundary line in their case runs, I have not succeeded in determining with certainty, but on the whole this may be supposed to coincide with the northern boundary of the tsetse fly. Riding on oxen seems however to some extent to be practiced in Portuguese Guinea, or was at all events so in olden times (Burama, Balanta, Mandjak). From the French Guinea and the hinterland of Sierra Leone and Liberia I have been unable to find any data, but according to Kirchhoff (see p. 5) pack oxen are found there too, and this is by no means improbable, at any rate as regards the former. Camels are said not to thrive there, and my nearest data (as to pack oxen) towards the north and north-west from there are not

located very far away: the town of Bondu and the Faleme (southern affluent to the Senegal) for one thing and Ulosebugu (80 km. S. of Bamako) for another. Continuing eastwards, we find the southern limit of the evidences I have collected concerning pack oxen to be the country north of Kong (but south of Bobo Diulasso). In the region between Bobo Diulasso and Nigeria I am unable to draw any boundary line, even approximately. In Northern Nigeria oxen (or bulls) at all events appear to be very generally used as pack animals. In this region my southernmost information concerns Fulani nomads in the province of Yola, and the Fulani, Mundang and Tuburi east and northeast of Yola (in northern Cameroons). As to whether the natives south of Bagirmi employ pack or riding oxen I have no direct information, but white travellers have used them between Fort Archambault and Fort Crampell (Gribingi) on the upper Shari and its tributaries, and even all the way down to Ubangi (Foureaux's expedition). According to Nachtigal, trading trips used to be made with donkeys or pack oxen southwards to Dar Runga and Dar Kuti (the 10th parallel, and southwards). For in those regions camels soon had to give up.

Besides by trade caravans and individual traders, between Lake Chad and the White Nile pack oxen are used by nomadizing tribes among whom may be noted the Shoa Arabs and in particular the Baggara, an appellation which embraces a large number of tribes who with their cattle range over wide tracts. The Baggara, "the bull-riders", may also be said to use their cattle as riding animals in the proper sense. Also to the east of the White Nile, between that river and the Atbara, certain tribes employ pack and riding oxen, as e. g. the Shushurieh "Arabs".

In Anglo-Egyptian Sudan the southern limit of the area where cattle are used as transport and riding animals may be said to coincide with the northern edge of the region occupied by the negroes. The practice in question is unknown among the Nilotic peoples (Cf. however the Nilotic Kavirondo, *infra*). Within the region occupied by them, the only users of riding oxen were Turks or other traders or slave-



dealers, arriving from Kordofan or Darfur whence they brought Baggara oxen. Occasionally they also helped themselves to oxen from the herds of the Nilotes, and trained them. Among white travellers that journeyed through the country of the Nilotes by means of riding oxen may be noted Baker, who used them all the way south to Unyoro, where the last one succumbed to tsetse flies.

From Abyssinia and Erithrea information is rather scanty. In the early accounts of the Portuguese missions to Abyssinia in the 16th century oxen used as transport animals are however referred to. In modern times such animals are especially mentioned from the Shoho Bedouins and from the Mensa of Erithrea. And it may be supposed that, generally speaking, their use is restricted to northern Abyssinia and certain parts of Erithrea. For the rest, the mule is the predominant pack and riding animal in the Abyssinian highland. In Kaffa no pack or riding oxen are found. As regards the Galla, the southern tribes employ, according to Brenner, riding oxen, beyond which I only possess an isolated piece of evidence from the Galla. This is that of a chief among the eastern Galla, mentioned by Bruce, who on state occasions rode on a cow. From the Somali the only evidence obtainable relates to those of Jubaland, who, when there are not enough camels, used bullocks to carry the grass mats for erecting their huts, from place to place.

The southernmost people of eastern equatorial Africa that employ pack oxen are the Masai, who on their migrations occasionally transport their household gear, and the hut-frames necessitated by the treeless plains, on the backs of oxen. For this purpose it is however only seldom that they use oxen or, more occasionally, cows (dr. Leakey told me that in the latter case only animals that have run dry, or are barren, are concerned), their principal transport animals being their donkeys. The tribes bordering on the Masai plains, many of whom have otherwise imitated the Masai fairly extensively, possess neither pack oxen nor donkeys, which however they have no need of seeing that they are settled agriculturists.

As an interesting exception in this respect we find in the Kenya Colony the Nilotic Kavirondo (Ja-Luo) among whom young men on certain occasions ride on oxen, and the Akikuyu, where boys may do so before circumcision but not after it. These cases are difficult of explanation. It is not feasible, at any rate as regards the Ja-Luo, to give the readily found explanation that it is simply a case of imitating Europeans or traders from the coast riding on mules or donkeys. If anything of the kind, one might rather suggest imitation of the southern Galla, whose area of distribution not very long ago extended considerably farther south than at present, i. e. down towards the Ukamba and Kikuyu countries. On the other hand it may hardly be supposed that the Ja-Luo have had any contact with the Galla. And in that case account must also be taken of the Wapokomo and the Wanyika tribes, who formerly lived contiguously to the Galla, from whom, however, no records of riding oxen exist. I am for the present constrained to leave unexplained these exceptions from the rule, otherwise smoothly prevalent throughout Africa, of riding on oxen being typical of a number of more or less nomadizing peoples, in addition to being practiced by traders in the Sudan, and, here and there, by important chiefs.

Within the gap existing between the northern and the southern areas of the distribution of pack or riding oxen in Africa there is only to be noted that the Belgians have in places introduced riding oxen at their stations in the Belgian Congo, and that the French appear to have made attempts in the same direction in the French Congo (Bourdarie, cited above). In the southern Congo individual important chiefs (among the Bashilange and other tribes), presumably in imitation of white travellers (Wissmann and others), have adopted the use of riding oxen, obtained from Angola. With the progressive motorization of Africa, begun some ten years back, all further occasion for extending the use of riding oxen by the whites may supposedly have become eliminated.

In Angola and neighbouring portions of Rhodesia the Portuguese and other whites employ riding oxen in a proper sense. As regards the native population of Angola there is

exceedingly little to be learnt. This may no doubt partly be due to no cattle being found in that territory as a whole. East of a line formed by the Kuango and the watershed between the Kubango and the Kuito the natives, with exceedingly rare exceptions, do not keep cattle (Marquardsen). But also from the region west of that line I only possess oral information (from Dr. Amandus Johnson) with regard to the Bailundo and the Bondo (concerning chiefs only?), but none whatever from the nomadizing cattle-keeping tribes of the south-western portions of the colony.

In South-West and South Africa the Hottentots (Nama, Korana, Gonaqua, Old Cape-Hottentots, and Griqua), as we know, made extensive use of oxen as pack and riding animals. This applies in some degree also to the Herero. Ox-riding was fairly commonly practiced by Bastards and whites in South-West Africa, in fact the Germans actually mounted on oxen personnel belonging to their territorial troops. Among Kaffirs and other Bantu peoples of South Africa, as far north as the source region of the Okavango, among whom pack or riding oxen are found may be noted the Xosa, Basuto, and other Bechuana tribes, such as the Batlapin, the Batawana and the Makololo (among the lastmentioned at any rate some chiefs). All these peoples are in the first place cattle-keepers.

In all parts of Madagascar where riding oxen are used they appear to have been introduced by the French during the 19th century.

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Primarily the occurrence of oxen in the capacity of pack or riding animals is based upon the distribution of horned cattle in Africa, which in its turn is dependent upon climatic factors — water supply, the prevalence of tsetse flies, etc. — and topographical conditions.<sup>1</sup> In conjunction with these factors the occurrence of the ox as a transport animal is also

<sup>1</sup> Among certain tribes the reason why they have not kept cattle, has also been that they have been unable to do so on account of rapacious neighbours, or because it was a privilege reserved for the chiefs.

! dependent upon the distribution of the camel (and to a certain degree also upon that of the mule and the donkey). Regarding the approximate northern and southern limits of the tsetse fly the reader is referred to the map in *E. Hegg*, *Les Tsé-Tsé* (Bruxelles 1929), and, as regards the southern limit for the camel, to *Andrée's Handatlas*. It may be said that these boundary lines — although frequently overstepped — on the whole apply to the occurrence of pack and riding oxen among African peoples. Europeans, on the other hand, have now and again by means of riding oxen travelled considerable distances into tsetse country.

As has been mentioned in the foregoing, it may be said of the whole of Africa, from Morocco to the Cape, that pack or riding oxen are used by nomadizing peoples, and in the Sudan also by traders. In infrequent cases — available references are at all events but few — it appears to have been the privilege of kings or chiefs to ride, on ceremonial occasions, on cattle, as e. g. the ancient Garamantes, the Mandingo (my authority dates from circa 1500), and certain Galla tribes (18th century).<sup>1</sup> Equally scanty are my data proving the opposite, namely that where camels or horses are found only people of the lower classes ride on oxen. Such was however the case, according to Golberry, in Senegal, where "the kings, princes and wealthy persons" rode on horses or camels, and, according to Clapperton, in Bornu, where "strangers and chiefs in the service of the sheikh or sultan alone possess camels".

Of the agricultural negro peoples it may be said that they do not need to use their cattle as transport animals because they are settled on the land. In spite of this, many of them, from various causes make changes of abode (as e. g. when a death has occurred). Even though in such cases the distance involved may not be great, they might nevertheless find it expedient to transport their household equipment on the backs of their oxen. Their not doing so is not always wholly

<sup>1</sup> Chiefs of the southern Congo possessing riding oxen I take no account of in this connection as there it is undoubtedly a case of European influence.



ascribable to lack of enterprise: superstition and other reasons may here also come into play. The Baila refused to utilize their numerous oxen as beasts of burden, a mere suggestion in that direction arousing them to genuine indignation.<sup>1</sup> Typical of many cattle-keeping tribes in East Africa is, as is well known, that cattle play a dominating part in their existence. They are rarely or never known to kill an animal for food, and the oxen pass the whole of their lives without being put to the slightest use. Their cattle are the delight of their eyes, as well as in an animated form constituting their capital.

We then arrive at the question as to whether the use of pack or riding oxen is indigenous to Africa, or not. Bearing in mind its antiquity in North Africa one may safely assert that it is. From there it has probably spread to the Sudan. In South Africa it undoubtedly appears to be indigenous at all events among the Hottentots (the Portuguese saw pack oxen among them on Vasco da Gama's first voyage) from whom their neighbours borrowed the practice unless not already indigenous to them. The Portuguese as well as whites of later arrival have, probably, from the Hottentots learnt ox-riding, which they then further developed and spread northwards to Angola and neighbouring countries.

In conclusion yet another question: Does any connection exist between the northern and the southern areas of distribution of the use of riding (or pack) oxen? It may perhaps not be possible to give a definite answer to this question, but one's mind recurs to the migrations that indubitably have taken place through East Africa from north to south, as well as to the rather numerous culture elements that are common to North-East and South Africa (the Hottentots in particular), viz. honey beer, skin bags as receptacles for milk and water, huts of beehive shape, etc. In native methods of hunting there is much that is common to North and South Africa although not found in the intervening area, such as ostrich disguise,

<sup>1</sup> *E. W. Smith & A. M. Dale, The Ila-speaking peoples of N. Rhodesia, I.* p. 127. London 1920.

throwing-sticks, snares made of animal material, etc.<sup>1</sup> Hamitic and Hottentot languages present, as we know, many remarkable resemblances, and, according to what I have been informed by Professor Meinhof, this especially applies to the Nama and Somali languages.

## V. PACK AND RIDING OXEN IN AMERICA.

I will conclude by mention that in various parts of South America oxen are used as riding animals and for carrying loads. I understand from Dr. G. Bolinder that this practise occurs among Creoles and negroes in the Magdalena department of the republic of Colombia. These "Creoles" have negro blood to a greater or less extent in their veins, which I mention in passing without in any way wishing to imply that it is from the negroes that they have learnt the use of pack and riding oxen. The Ijca Indians of Sierra Tairona employ oxen for carrying loads: "Für die Indianer ist natürlich der Ochse (*Paca* von span. *Vaca* = Kuh) das wichtigste Tier. Er ist das Lasttier dieser Gegenden, da er vorwärtskommt, wo es dem Esel nicht möglich ist und Pferd und Maultier versagen. Kein Indianer ist so arm, dass er nicht wenigstens einen Ochsen sein eigen nennt. Kühe hält er nicht viele... Ausnahmsweise findet die Kuh auch als Lasttier Verwendung. Man kann ihr nur ganz kleine Gepäckstücke aufladen; sie kann jedoch insofern von Nutzen sein, als sie Milch zum Reiseproviand beisteuert. Die Kreolen nennen eine solche Kuh "Bueya" (wörtlich "Öchsin")."<sup>2</sup> Bolinder further writes of the pack oxen of the Ijca Indians (p. 94): "Diese werden mit einem ganz einfachen Saumsattel gesäumt, der aus einem Polster aus Platanofasern mit einem darübergelegten Holzgestell besteht. Der Sattel ähnelt den von den Kreolen be-

<sup>1</sup> I have touched upon this subject in my work on African hunting and trapping methods (Jakt- och fångstmetoder bland afrikanska folk. With a "retrospect" in English. I, p. 124; II, p. 137. Stockholm 1925—26).

<sup>2</sup> G. Bolinder, Die Indianer der tropischen Schneegebirge, p. 58, Taf. 36. Stuttgart 1925.

nutzten Eselsätteln und ist natürlich nach dem Muster von diesen konstruiert. Als Reittiere werden die Ochsen hier nie verwandt; dagegen kommt dies bei den Kreolen bisweilen vor. Andererseits verwenden die Ijca die Pferde nicht als Lasttiere."

In parts of the Chaco and adjoining districts where horses cannot exist owing to prevalent diseases and lack of grazing, riding oxen are used. A. Thouar relates how these were procured in San José de Chiquitos, and depicts both civilians and soldiers mounted on saddled oxen. These animals were "parfaitement dressés et se laissent facilement monter".<sup>1</sup> E. Nordenskiöld has told me that he observed riding oxen in Mojos in Bolivia.

In the southern states of North America there appears to have been instances of negroes riding on oxen, to judge from an illustration in *Le Tour du Monde* of a negro village in Georgia, showing among other things a man riding on an ox.<sup>2</sup> This is presumably a case of a negro custom pure and simple, which I think cannot offhand be said with regard to the regions in South America where pack or riding oxen occur.

<sup>1</sup> *A. Thouar, Voyage dans le Chaco Boreal. Le Tour du Monde*, vol. 58, p. 208. Paris 1889.

<sup>2</sup> *W. Hepworth Dixon, La conquête blanche. Le Tour du Monde* 1876 (32), p. 117.



*Fig. 1. A Touareg mounted on a riding ox at the Tit oasis, Hoggar.  
(After Olufsen).*



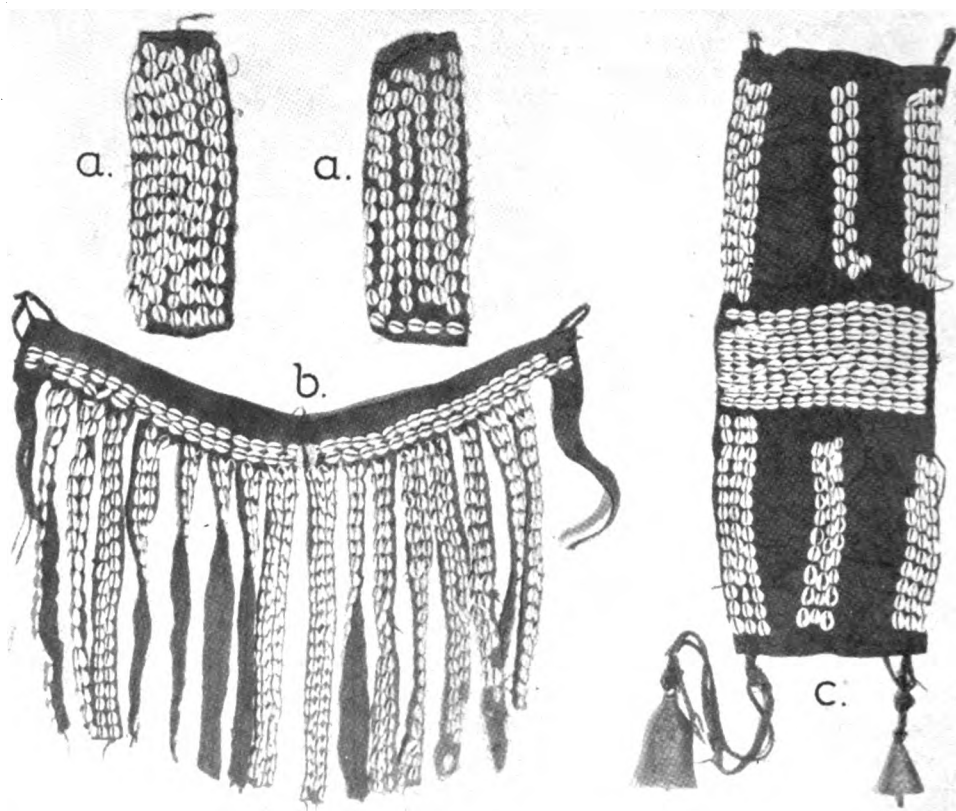
*Fig. 2. Postage stamp showing oxen as pack and riding animals  
in Mauretania.*



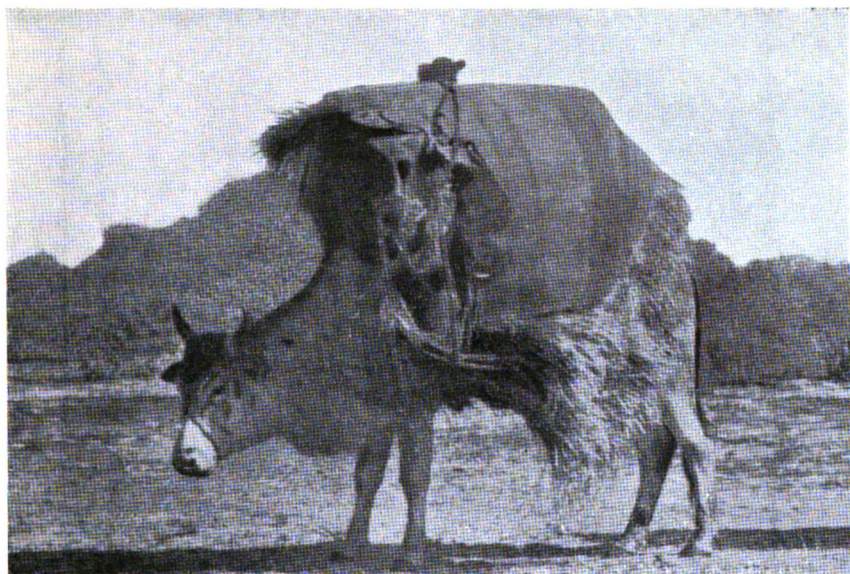
*Fig. 3. A girl riding an ox. Papel,  
Portuguese Guinea.  
(By courtesy of the photographer, Mr.  
E. Hintz, Berlin).*



*Fig. 4. Riding ox. Arab nomads. Lake Chad Colony.  
(From a picture postcard).*



*Fig. 5. Trappings for riding oxen (leather set with cowrie shells.) Arab nomads between Mongo and Abou-Deia. Lake Chad Colony.*  
*a. Carried on the horns; b. About the forehead; c. At the back (with two ornamented brass bells). In addition a large saddle-cloth is worn covering the back.*  
*(G. Moberg's collections, Riksmuseum, Stockholm).*



*Fig. 6. A bullock carrying the grass mats for making the huts, and the fibre water-bottles. Somali, Jubaland.  
(After Dracopoli).*

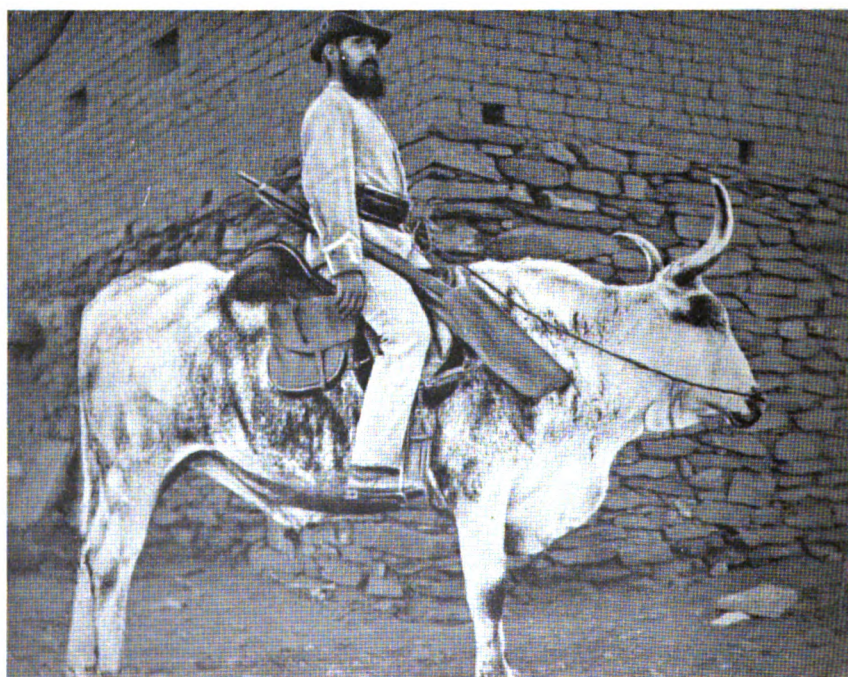


*Fig. 7. Masai on the march. Laikipia, British East Africa.  
(After v. Höhn).*





*Fig. 8. <sup>5</sup>A farmer on his riding bullock. Lusaka, N. Rhodesia, 1913.  
(By courtesy of the photographer, Mr. M. Leijer).*



*Fig. 9. A non-commissioned officer, German troops, S. W. Africa.  
(After v. François).*



*Fig. 10. Makaranga boys, S. Rhodesia, on their way to school.  
(By courtesy of the photographer, Rev. G. Bernander, and the Directors of the  
Swedish Church Mission).*



*Fig. 11. Riding oxen, Ambato, Madagascar.  
(By courtesy of the photographer, Dr. W. Kaudern).*





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